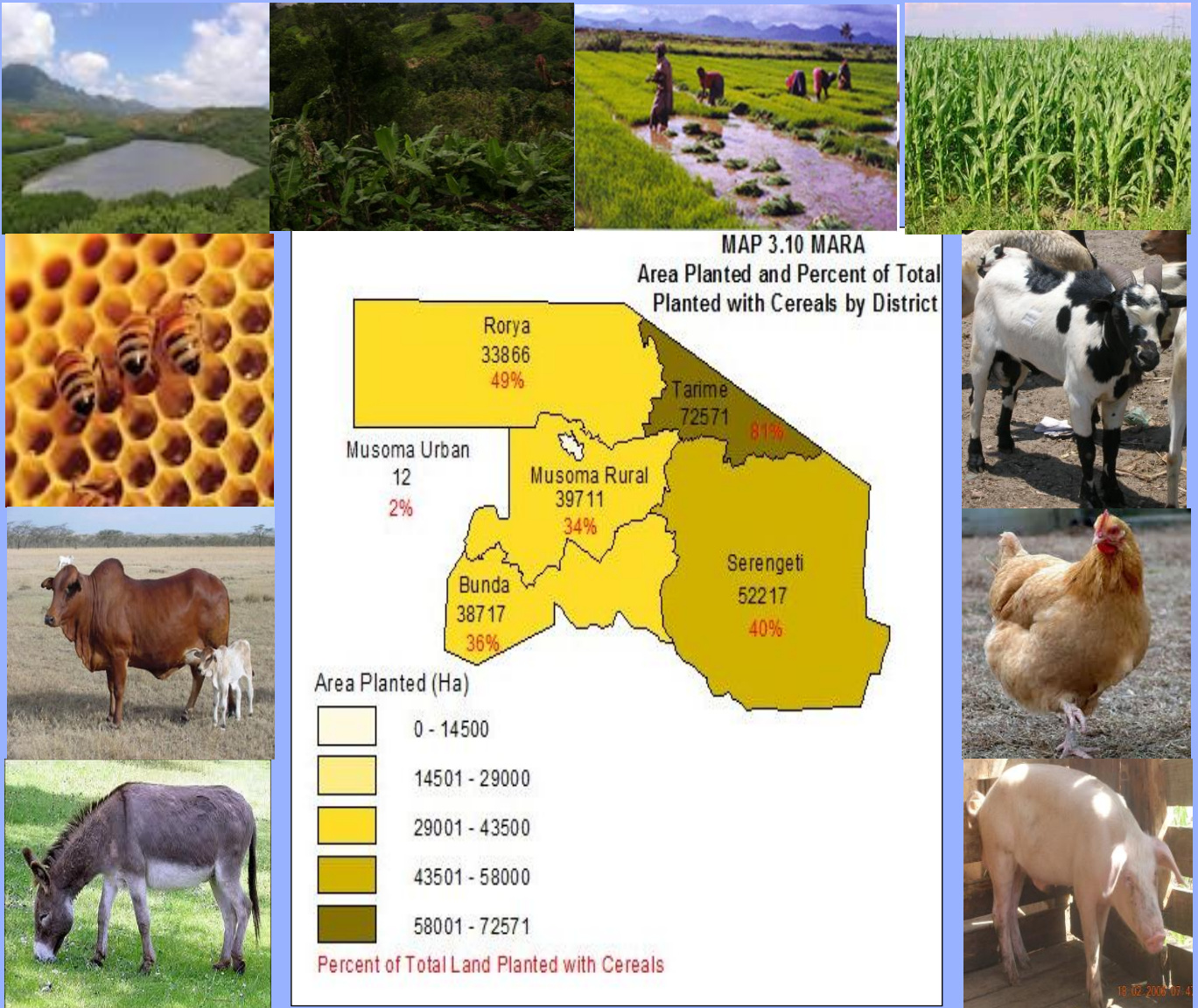




The United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE 2007/2008

Volume Vt: REGIONAL REPORT: **MARA REGION**



Ministry of Agriculture, Food Security and Cooperatives; Ministry of Livestock Development and Fisheries; Ministry of Water and Irrigation; Ministry of Agriculture, Livestock and Natural Resources, Zanzibar; Prime Minister's Office, Regional Administration and Local Governments; Ministry of Industries, Trade and Marketing; The National Bureau of Statistics and the Office of the Chief Government Statistician, Zanzibar.

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JULY 2012

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ACRONYMS AND ABBREVIATIONS

ASDP	Agricultural Sector Development Programme
CSPro	Census and Survey Processing Program
CSTWG	Censuses and Surveys Technical Working Group
DADIPS	District Agricultural Development and Investment Projects
DADO	District Agricultural Development Officer
DFID	Department for International Development
DIAS	District Integrated Agricultural Survey
DS	District Supervisor
EAS	Expanded Agricultural Survey
EAs	Enumeration Areas
EU	European Union
FE	Field Enumerator
GDP	Gross Domestic Product
GIS	Geographical Information System
ha	Hectares
hh	Household
IAS	Integrated Agricultural Survey
ICR	Intelligent Character Recognition
ID	Identity
IEC	Information, Education and Communication
JICA	Japanese International Cooperation Agency
LRS	Long Rainy Season,
MAFC	Ministry of Agriculture , Food Security and Cooperatives
MITM	Ministry of Industries Trade and Marketing
MLFD	Ministry of Livestock and Fisheries Development
NBS	National Bureau of Statistics
NGO	Non Governmental Organization
NMS	National Master Sample
NSCA	National Sample Census of Agriculture
NSGRP	National Strategy for Growth and Reduction of Poverty (MKUKUTA)
OCGS	Office of Chief Government Statistician Zanzibar
PMO-RALG	Prime Ministers Office, Regional Administration and Local Government

PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
RS	Regional Supervisor
RSM	Regional Statistical Manager
SPSS	Statistical Package for Social Science
SRS	Short Rainy Season
TOT	Training of Trainers
UNDP	United Nations Development Programme
UNFAO	United Nations Food and Agriculture Organization

PREFACE

At the end of the 2007/08 Agricultural Year, the National Bureau of Statistics (NBS) in collaboration with the Ministries of Agriculture, Food Security and Cooperatives, Livestock and Fisheries Development; Water; Industry and Trade; the Prime Minister's Office, Regional Administration and Local Government (PMO/RALG) and the Office of the Chief Government Statistician, (OCGS), Ministries of Agriculture and Natural Resources; Livestock and Fisheries conducted the Agricultural Sample Census. This is the fourth Agricultural Census to be carried out in Tanzania, the first one was conducted in 1971/72, the second in 1993/94 and 1994/95 (during 1993/94 data on household characteristics and livestock count were collected and data on crop area and production in 1994/95), and the third was conducted in 2002/03.

The census collected detailed data on crop production, crop marketing, crop storage, livestock production, fish farming, and poverty indicators. In addition to this, the census was large in its scope and coverage as it provides data that can be disaggregated at district level and thus, allow comparisons with the 2002/03 National Sample Census of Agriculture. The census covered smallholders in rural areas only and large scale farms. This report presents data disaggregated at regional and district level and it focuses on small holders crop production and livestock keeping.

The extensive nature of the census in relation to its scope and coverage is a result of the increasing demand for more detailed information to assist in the proper planning of the agricultural sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to improve the prevailing conditions faced by agricultural households in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the Department for International Development (DFID) and the Japanese Government through the Japan International Cooperation Agency (JICA) and others who contributed through the pooled fund mechanism.

My appreciation also goes to all those who in one-way or the other have contributed to the success of the census. In particular, I would also like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics, Ministry of Agriculture, Food Security and Cooperatives, Ministry of

Livestock Development and Fisheries, Ministry of Water and Irrigation, Ministry of Agriculture, Livestock and Environment, Zanzibar, the Prime Minister's Office, Regional Administration and Local Government, Ministry of Industries, Trade and Marketing and the Office of the Chief Government Statistician, Zanzibar, the Food and Agriculture Organization of the United Nations and the Censuses and Surveys Technical Working Group (CSTWG).

Finally, I would like to extend my sincere gratitude to all the professionals, the consultants, Regional and District Supervisors and field enumerators for their commendable work. Certainly without their dedication, the census would not have been successful.

Dr. Albina Chuwa
Director General
National Bureau of Statistics

EXECUTIVE SUMMARY

The executive summary highlights the main census results obtained during the National Sample Census of Agriculture 2007/08. This report covers small-scale agricultural households which were selected using statistical sampling techniques in rural areas of Mara region. The results in the report do not cover urban areas and large-scale farmers. The highlights describe the important findings in relation to agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural related activities and poverty in Mara region. It provides an overview of the rural agricultural households and their levels of involvement in agricultural related activities at regional level.

I. Household Characteristics

The number of agricultural households in Mara region was 226,731, of which 120,998 (53.4%) were involved in crops as well as livestock production, 104,928 (46.2%) were involved in growing crops only, and only 805 households (0.3%) were involved in livestock keeping only.

Most of the agricultural households ranked crop /seaweed farming (46.3%) as an activity that provided most of their cash income, followed by fishing (1.3%), and livestock keeping/herding (0.9%).

Mara region had a total literacy rate of 79.9 percent. The highest literacy rate was found in Tarime (84.5%), followed by Musoma Rural (79.6%), Rorya (78.6%), Musoma urban (78.5%), and Bunda (78.3%). The lowest literacy rate was recorded at Serengeti (76.7%). The literacy rate for the heads of households in the region was 79 percent.

The number of heads of agricultural households with formal education in Mara region was 177,511 (78%), those without any education were 47,465 (21%) and those with only adult education were 1,756 (1%) The majority of heads of agricultural households in Mara region had primary level education (72%), whereas only 6 percent had post primary education.

II. Crop Production

▪ Land Area

The total area of land available to smallholders was 507,551 ha, however the utilisable land was 388,644 ha (76.6% of the land area available in the region). The regional average land area utilised for agriculture per household was 1.7 ha. This figure is below the national average of 2.0 hectares

▪ Planted Area

The area planted with annual crops and vegetables in Mara region was 297,475 hectares out of which 170,217 hectares (57%) were planted during the short rainy season and 127,258 hectares (43%) during long rainy season. The area planted with cereals was 237,094 ha (60% of the total planted area), followed by roots and tubers with 114,901 ha (29%), pulses (15,722 ha, 4%), annual cash crops (19,801 ha, 5%), fruits and vegetables (3,197 ha, 1%) and oil seeds (2,163 ha, 1%)

i) Cereal Crops

▪ Maize

Maize was the most important cereal crop in Mara region, however it had the first largest planted area. The number of households growing maize in Mara region during the long rainy season was 104,065 households (46 percent of the total crop growing households in the region). The total production of maize was 116,984 tonnes from a planted area of 64,747 hectares resulting in a yield of 1.8 t/ha in the long rainy season.

There was a gradual increase in yield from 1.2 tons/ha in 2003 to 1.7t/ha in 2008 as well a sharp increase in area planted from 91,804 in 2003 hectares to 146,664 in 2008. The quantity produced more than doubled over the same period from 110,665 tonnes to 256,552 in both short and long rainy seasons.

The average area planted with maize per household in the long rainy season was 0.6 hectares, however it ranged from 0.1 hectares in Musoma Urban district to 0.7 hectares in Musoma Rural district. Tarime district had the largest area of maize (50,907 ha), followed by Serengeti (28, 597 ha), Musoma Rural (24,166ha), Bunda (23,053 ha) and Rorya(19,935ha). Musoma Urban had the lowest planted area with maize of 7 hectares.

▪ **Sorghum**

Sorghum was the second most important cereal crop in the region in terms of planted area. The number of households that planted sorghum in Mara region during the long rainy season was 63,242 households. This represents 46 percent of the total crop growing households in Mara region in the long rainy season. The total production of sorghum was 41,052 tonnes from a planted area of 32,968 hectares resulting in a yield of 1.2 t/ha. The district with the largest area planted with sorghum was Serengeti (18,362ha), closely followed by Tarime (18,164 ha), Rorya (13,109 ha), Musoma Rural (12,211 ha), and Bunda (11,769 ha).

ii) **Roots and Tubers**

The total production of roots and tubers was 223,289 tonnes. Of all roots and tubers, Cassava production was the most important with a total production of 177,408 tonnes representing 79.5 percent of the total root and tuber crop production. This was followed by sweet potatoes with 4,575 tonnes (20%), Irish potatoes (812 tonnes, 0.4%), and yams (491 tonnes, 0.2%).

▪ **Cassava**

The number of households growing cassava in Mara region was 128,383. This represented 83.8 percent of the total roots and tubers crop growing households in the region. The total production of cassava during the census year was 177,408 tonnes from a planted area of 96,281 hectares resulting in a yield of 1.8 t/ha

▪ **Sweet Potatoes**

The number of households growing sweet potatoes in Mara region during the long and short rainy seasons was 64,200 (33 percent of the total roots and tubers growing households in the region). The total production of sweet potatoes during the census year was 44,578 tonnes from a planted area of 18,127 hectares resulting in a yield of 2.5 t/ha.

▪ **Pulse Crops Production**

The total area planted with pulses was 15,722 hectares out of which 13,715 ha (87 percent of the total area planted with pulses) were planted with beans, followed by chick peas (625 ha, 4%), cowpeas (584 ha, 4%), mung beans (328 ha, 2%) Green gram (227ha, 1%) and Bambara nuts (145 ha, 1%), and field peas (98ha, 1%).

iii) Oil Seed Production

The total production of oilseed crops was 2,080 tonnes planted on an area of 2,163 hectares. Groundnuts were the most important oilseed crop with 1,343 ha (62.1 % of the total area planted with oil seeds), followed by sunflower (526 ha, 24.3%), simsim (175 ha, 8.1%), and soya beans (119 ha, 5.56%).

iv) Fruit and Vegetables

The most cultivated fruit and vegetable crop was the tomato with a production of 20,914 tonnes (74% of the total fruits and vegetables produced), followed by water melon (2,835 tonnes, 10 %), cabbage (1,680 tonnes, 5.9%), onions (743 tonnes, 2.6%) and okra (523 tonnes, 2%). The production of other fruit and vegetable crops was relatively small amounting to less than 2 percent

v) Annual Cash Crops

An area of 19,801 was planted with other annual crops which are mainly cotton and tobacco representing 5 percent of the total planted area in the region. The area planted with annual cash crops in the short rainy season was 13,719 ha which represents 8.5 percent of the total area planted with annual crops in short rainy season. The area planted with annual cash crops in long rainy season was 6,081ha representing 5 percent of the total area planted with annual crops during the long rainy season.

vi) Permanent Crops

The smallholder planted area of permanent crops was 99,176 hectares (25 % of the total plated area of annual and permanent crops in the region). The most important permanent crops in Mara region were Coffee and banana which had planted areas of 1,256 ha and 1,346 ha respectively both accounting for 1.3 percent of the planted area with permanent crops. This is followed by orange (260 ha, 0.3%), and sugarcane (151 ha, 0.2%). The remaining other permanent crops together accounted for 98 percent of the total area planted with permanent crops in Mara region

III Inputs/Implement Use

Improved Seeds

The total planted area using improved seeds was 49,300 ha which represents 17 percent of the total area planted with the annual crops and vegetables. The percentage use of improved seed in the short

rainy season was 16.4 percent, more or less same with the corresponding percentage use of improved seed during the long rainy season (16.8%).

▪ **Use of Fertilizers**

The use of fertilisers on annual crops was very small with a planted area of only 25,983 ha (8.7% of the total annual crops planted area in the region). Of the planted area with fertiliser application, organic fertiliser was applied on 20,309 ha representing 78 percent of the total planted area and inorganic fertilizers were used on a small area which represented 22 percent of the area planted with fertilizers.

▪ **Pesticide Use**

Pesticides were applied to a planted area of 21,601 ha of annual crops and vegetables. Insecticides are the most common pesticide used in the region (85% of the total area applied with pesticides). This was followed by fungicides (13%) and herbicides (2%)..

▪ **Irrigation**

In Mara region, the area of annual crops under irrigation was 5,528 ha representing 1.9 percent of the total area planted. The district with the largest planted area under irrigation with annual crops was Tarime (3,472 ha, 63% of the total annual crops irrigated planted area in the region). This is followed by Serengeti, Musoma Rural and Bunda accounted to 11 percent each with planted area under irrigation of 626 hectares, 601 hectares and 600 hectares respectively.

iv Crop Storage and Marketing

▪ **Crop Storage**

There were 283,663 crop growing households (92.7% of the total crop growing households) that stored various agricultural products in Mara region.

The most common method of storage in the region was locally made traditional structures in both short and long rainy seasons, followed by sacks/open drum

▪ **Crop Marketing**

The number of households that reported selling crops was 224,803 which represent 73.5 percent of the total number of crop growing households. The proportion of crop growing households selling

crops was highest in Tarime (91.4%), followed by Serengeti (73%), Musoma Rural (69.1%), Musoma Urban (65.5%), Bunda (63.2%) and Rorya (50.5%).

v. Access to Crop Production Services

▪ Access to Agricultural Credit

In Mara region, very few agricultural households (2,319, 1% of agricultural households in the region) have access to credit. Out of which 1,943 (83.8%) credits were received by male household member and 376 (16.2%) credits received by female household members. In Serengeti district only male household members got agricultural credit whereas in Rorya district both male and female household members accessed agricultural credit at fifty percent each. In the remaining districts more male household members than female household members accessed credit. Access to credit was not reported in Bunda and Musoma Urban districts.

▪ Crop Extension Services

The number of Agricultural households that received crop extension was 154,612 (68% of the total crop growing households in the region). Some districts had more access to extension services than others, with Musoma Rural having the highest proportion of households (88.3% of the crop growing households) that received crop extension messages, followed by Tarime (70.9%), Bunda (66.1%), Rorya (58.3%), Serengeti (43.1%) and Musoma Urban (31%),

vii. Erosion Control Facilities

The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 16,785 which represented 7 percent of the total number of agricultural households in the region). The proportion of households with soil erosion control and water harvesting facilities was highest in Musoma Urban district (22% of the total agricultural households in the district), followed by Rorya (11%), Tarime (9%), Musoma Rural (8%), Bunda (4%), and Serengeti (3%)

viii. Livestock Results

i) Livestock Population

▪ Cattle

The total number of cattle in the region was 1,691,118. Cattle were the dominant livestock type in the region, followed by goats, sheep and pigs. The region had 7.9 percent of the total cattle population on Tanzania Mainland. The number of indigenous cattle in Mara region was 1,682,569 (99.5 % of the total number of cattle in the region). The number of dairy breeds was 2,877 cattle (0.2%) and 5,671 cattle (0.3%) were beef breeds.

▪ Goats

The number of goat-rearing households in Mara region was 95,821 (17.5% of all agricultural households in the region) with a total number of 913,524 goats giving an average of 10 head of goats per goat-rearing household. Musoma Rural district had the largest number of goats (266,802 goats, 29.2% of all goats in the region), followed by Bunda (211,284 goats, 23.1%), Tarime (185,499 goats, 20.3%), Serengeti (166,992 goats, 18.3%) Rorya (81,436 goats, 8.9%) and Musoma Urban (1,511 goats, 0.2%).

▪ Sheep

The number of sheep-rearing households was 38,308 (17% of all agricultural households in Mara region) rearing 418,077 sheep, giving an average of 11 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Tarime with 110,880 sheep (26.5% of total sheep in Mara region) closely followed by Bunda (109,999 sheep, 26.3%), Serengeti (81,336 sheep, 19.5%), Musoma Rural (74,897 sheep, 17.9%) and Rorya (40,847 sheep, 9.8%). Musoma Urban district had the least number of sheep (119 sheep, (0.03%).

▪ Pigs

The number of pig-rearing agricultural households in Mara region was 419 (0.2% of the total agricultural households in the region) rearing 1741 pigs. This gives an average of 4 pigs per pig-rearing household. The district with the largest number of pigs was Musoma Rural with 1,203 pigs (69.1% of the total pig population in the region), followed by Rorya (344 pigs, 19.8%) and Bunda (194 pigs, 11.1%). Pig rearing households was not reported in the rest of the districts.

- **Chicken**

The number of households keeping chicken was 164,618 raising about 1,802,523 chicken. This gives an average of 11 chicken per chicken-rearing household. In terms of total number of chicken in the country, Mara region was ranked 10th out of the 21 Mainland regions.

- ii) **Pests and Parasites Incidences and Control**

About 58 percent and 16 percent of the total livestock-keeping households reported to have encountered ticks and tsetse fly problems respectively. There was a predominance of tick related diseases over tsetse related diseases.

While incidences of tick problems were highest in Tarime district and lowest in Musoma Urban district, tsetse flies incidences were highest in Serengeti but lowest in Musoma Urban district.

- iii) **Access to Livestock Services**

The total number of households that received livestock advice was 108,121, representing 57 percent of the total livestock rearing households in the region. The main livestock extension agent was the government which provided service to about 90.4 percent of all households receiving livestock extension services. This was followed by NGOs/development projects (17.2%), Radio/Television/Newspaper (15.8%), neighbor (7.6%), cooperatives (3.6%) and large scale farmers (1%).

IX. Fish Farming

No fish farming was reported in Mara region

X. Poverty Indicators

- i) **Type of Toilets**

A large number of rural agricultural households in Mara region used traditional pit latrines (158,249 households, 70% of all rural agricultural households), 20,148 households (7%) used improved pit latrines, 2,554 households (1%) used flush toilets, and 622 household (0.2%) used other toilets facilities. However, households with no toilet facilities represented 22 percent of the total agriculture households in the region and most of these were found in Tarime district.

ii) Household Assets

Out of all assets, radios were owned by most (70% of households) rural agricultural households, followed by bicycle (59%), Mobile phones (39%), irons (34%). Ownership of the remaining asset had less than 30 percent.

iii) Source of Lighting Energy

Wick lamp was the most common source of energy for lighting in the region, with 58 percent of the total rural households using this source of energy, followed by hurricane lamp (35%), pressure lamp (4%), mains electricity (1%), and solar (1%). The remaining sources were minor and accounts for less than 1 percent.

iv) Energy for Cooking

The most prevalent source of energy for cooking in Mara region was firewood, which was used by 97.1 percent of all agricultural households in the region. This is followed by charcoal (1.9%) and Crop residues (0.6%). The rest of energy sources accounted for less than 0.5 percent. These were bottled gas (0.1%), crop residues (0.1%), and solar (0.1%,) and Main Electricity (0.04%)

v) Roofing Materials

The most common material used for roofing the main dwelling was grass and leaves and it was used by 53 percent of the rural agricultural households in Mara region. This was followed by iron sheets (40%), grass and mud (4%), asbestos (3%), concrete (0.3%), and tiles (0.1%).

vi) Access to Drinking Water

The main source of drinking water for rural agricultural households in Mara region was unprotected wells (43% of households use unprotected wells during the wet season and 42 percent of household during the dry season). This is followed by surface water (Lake / Dam / River / Stream) (19% of household during wet season and 28 percent in the dry season), protected wells (13% of households in the wet season and 12 percent in the dry season). The remaining sources were minor for the two seasons accounted for less than 10 percent each.

About 57 percent of the rural agricultural households in Mara region obtained drinking water within a distance of less than one kilometer during wet season compared to 36 percent of the

households during the dry season. However, 33 percent of the agricultural households obtained drinking water from a distance of one to two kilometers during the wet season compared to 44 percent of households in the dry season.

vii) Number of Meals per Day

Majority (60 percent) of agricultural households in Mara region normally had 2 meals per day. This was followed by 3 meals per day (37 percent) and 1 meal per day (3 percent). No agricultural households was reported to have 4 meals per day. Tarime district had the highest percentage of households having one meals per day as well as households having 3 meals per day. while Serengeti had the second highest of households having 3 meals per day.

▪ Meat Consumption Frequency

About 67.5% of the agricultural households in Mara region consumed meat during the week preceding the census. About 56 percent of the households that consumed meat consumed meat only once during the respective week. This was followed by those who had meat twice during the week (28%). Very few households had meat three times or more during the respective week. About 32.5% of the agricultural households in Mara region) did not eat meat during the week preceding the census.

Most of the total agricultural households in Mara region (88%) of the total agricultural households in the region) consumed fish during the week preceding the census, with 33,998 households (20.1% of those who consumed fish) consuming fish once during the respective week

▪ Fish Consumption Frequency

About 82.5 percent of the total agricultural households in Mara region consumed fish during the week preceding the census, with 27% of those who consumed fish consuming fish once during the respective week. This was followed by those who had fish twice (24%) and three times (14%). About 17.4 percent of the agricultural households in Mara region did not eat fish during the week preceding the census.

viii) Food Security

About 27% of the total agricultural households in the region said they did not experience any food sufficiency problems. 41 percent said they seldom experienced problems in satisfying the

household food requirement. The rest 32 percent of the households did experience food sufficiency problems at different levels from severe to mild.

xi. Main Source of Cash Income

The main source of cash income of the households in Mara region was from selling food crops (72 percent of smallholder households), followed by sale of livestock and other casual cash earnings (6%) each, businesses (4%), sale of cash crops and sale of livestock products accounted for 3 percent each. Others include fishing and wages or salaries (2%) each, cash remittance and sale of forest products each accounting for 1 percent.

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1 BACKGROUND INFORMATION

Agriculture is an important economic sector of the Tanzanian economy as it provides the main source of food, employment, raw materials for industry, and an important source of foreign exchange earnings. Since Tanzania is endowed with a diversity of climatic and geographical zones, farmers grow a wide variety of food crops, cash crops as well as fruits, vegetables and spices. The contribution of crops sector to the national GDP is estimated at 18.2% (The Economic Survey 2008).

1.1 Introduction

This part of the report presents a brief description of the region by providing information on geographical location, land area, climate, administrative set up, population and socio-economic indicators. The information will provide the user with a general understanding of the region and its resources.

1.2 Geographical Location and Boundaries

Mara region is located in the northern part of Mainland Tanzania. The region lies between latitudes 1° 0' and 2° 31' South of the Equator and between longitudes 33° 10' and 35° 15' East of Greenwich. The region is bordered by Kenya and Uganda in the north, Arusha region to the east, Shinyanga region in the south, Mwanza region in the south west and in the west.

1.3 Land Area

Mara region occupies a total area of 30,150 square kilometers. Of this area 10,584 square kilometers is water area covered mainly by lake Victoria and 7,750 sq kms is occupied by Serengeti National Park.

1.4 Climate

1.4.1 Temperature

The region has a maximum temperature of 29.320 degrees centigrade and a minimum temperature of 27.680 degrees centigrade while the average temperature for this region is 28.50 degrees centigrade.

1.4.2 Rainfall

The region has a bimodal rainfall pattern with short rainfall period between September and January and long rainfall period between February and June.

1.5 Administrative Setup

Mara region is divided into six administrative districts namely Musoma Rural, Musoma Urban, Bunda, Serengeti, Tarime and Rorya. The headquarters of the region is located in Musoma Urban.

1.6 Population

According to the 2002 Population and Housing Census, there were 1,368,602 inhabitants in Mara region and an average household size of 5.5 persons. This was about 4 percent of Tanzania Mainland's population. The annual Average Population growth rate (1988 – 2002) was 2.5 percent.

1.7 Socio- Economic Indicators

The regional Gross Domestic Product (GDP) at current prices for the year 2008 was estimated to be 961,438 Tshs. million, it contributed about 3.88 percent to the national GDP. There are a number of tourist attractions in the region. These are Serengeti National Park, Game Reserves, Game Controlled areas and Lake Victoria. Serengeti National Park occupies the area of 14,763 sq km of which 7,750 sq km (52.5%) are situated in Mara region. A small part of the population is engaged in fishing activities. This group includes people who live close to the shore of Lake Victoria, also there are some gold mining activities in the region.

2 INTRODUCTION

This section provides technical and operational description of the National Sample Census of Agriculture (NSCA), carried out in the rural areas of Tanzania Mainland and Tanzania Zanzibar during the 2007/08 agricultural year. It details the background and the rationale for carrying out the NSCA in 2007/08 agricultural year. It also explains the sampling procedures, designing and implementation of the data processing system.

This report (Volume Vt) is among the 21 regional reports for the Mainland. Other Census reports include the Technical Report (Volume I), Crop Sector Report at National level (Volume II), Livestock Report at National level (Volume III), Large Scale Farms Report (Volume IV), Regional Reports (Volume V series), Zanzibar Livestock Report (Volume VI) and Zanzibar Crop Sector Report (Volume VII). Unlike the 2002/03 Agricultural Sample Census, the 2007/08 Sample Census does not have a separate report for Smallholder Household Characteristics and Access to Natural Resources Report. Other thematic reports will be produced depending on the demand and availability of funds.

This report is divided into five main sections; Background information, Introduction, Results, Mara profiles (Districts) and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire.

2.1 The Rationale for Conducting the National Sample Census of Agriculture

The Government of Tanzania has embarked on various plans geared to eradicate poverty by the year 2025 and Zanzibar by the year 2020. In order to facilitate intervention and monitoring activities of the Poverty Monitoring Master Plan, the government has planned a series of censuses and surveys to assist in policy formulation, planning and to track changes in the wellbeing of the population of Tanzania Mainland and Tanzania Zanzibar. In this Master Plan, A series of Agricultural Surveys have been planned, the first one was undertaken in 2002/03 agricultural year and the second in 2007/08.

Demands for reliable and timely agricultural data have become significantly increasing for monitoring outcomes and progress of the poverty monitoring tools like the Agricultural Sector Development Programme (ASDP) and performance of the respective MDAs (ASLMs).

Following the decentralization of the Government's administration and planning functions, there has been a pressing need for agricultural and rural development data disaggregated at regional and district level. The provision of district level estimates will provide essential baseline information on the state of agriculture that supports decision making by the Local Government Authorities and in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

2.2 Census Objectives

The 2007/08 Agricultural Sample Census was designed to meet the data needs of a wide range of users down to the district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, NGOs, farmers organizations, and the like. The dataset is both extensive in its sample and detailed in its scope and coverage to meet the user demand.

The census was carried out in order to:

- Identify structural changes, in the size of farm household holdings, crop and livestock production, farm inputs and implement use. It also seeks to determine if there are any improvements in the rural infrastructures and the level of agricultural household living conditions;
- Provide benchmark data on productivity, production and agricultural practices in relation to policies and interventions promoted by the Ministry of Agriculture and Food Security and other stakeholders; and
- Establish baseline data for the measurement of the impact of high level objectives of the Agricultural Sector Development Programme (ASDP), National Strategy for Growth and Reduction of Poverty and other rural development programmes and projects.

2.3 Census Scope and Coverage.

The 2007/08 Agricultural Sample Census was conducted for both large and small scale farms. The data was collected from a sample of 52,635 small scale agricultural households of which 48,880 were from the Mainland and 4,755 from Zanzibar. To meet National estimates, data was also collected from 1,006 Large Scale Farms (968 on the Mainland and 38 in Zanzibar) on a complete enumeration basis.

Three different questionnaires were used to collect data on agriculture and related aspects. These were:

- Small scale farms questionnaire;
- Community questionnaire; and
- Large scale farm questionnaire.

The small scale farm questionnaire was the main census instrument which included questions related to crop and livestock production and practices; population demographics; access to services, resources and infrastructure; issues on poverty and gender. Main subjects covered during the study include:-

- Household demographics and activities of the household members;
- Land access/ownership/tenure and use;
- Crop and livestock production and productivity;
- Access to inputs and farming implements;
- Access and use of credits;
- Crop marketing, storage;
- Fish farming;
- Investment activities: Irrigation structures, water harvesting, erosion control;
- Off farm income;
- Household living conditions (housing, sanitary facilities, etc);
- Livelihood constraints; and
- Poverty Indicators.

The community level questionnaire was designed to collect village data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

Large Scale Farm questionnaire was administered to all large scale farms either privately or corporately managed. However, the analysis of Large Scale Farms is presented in a separate report (Volume IV).

2.4 Census Methodology

The main focus at all stages of the census execution was on data quality and this has been emphasized all the time. The main activities undertaken include:

-
- Census organization;
 - Tabulation plan preparation;
 - Sample design;
 - Design of census questionnaire and other instruments;
 - Pilot test;
 - Training of trainers, supervisors and enumerators;
 - Information Education and Communication (IEC) campaign;
 - Data collection;
 - Field supervision and consistency checks;
 - Data processing:
 - Scanning,
 - Structure formatting application,
 - Batch validation application,
 - Manual data entry application,
 - Tabulation preparation using SPSS.
 - Table formatting and charts using Excel, maps generation using Arc GIS and Excel, Report preparation using Ms Word and Excel.

2.4.1 Census Organization

The census was conducted by the National Bureau of Statistics (NBS) in collaboration with Ministries of Agriculture, Food Security and Cooperatives, Livestock and Fisheries Development; Water; Industry and Trade; and the Prime Minister's Office, Regional Administration and Local Government in Tanzania Mainland. The Office of the Chief Government Statistician, (OCGS), Ministries of Agriculture and Natural Resources Livestock and Fisheries in Tanzania Zanzibar. At the national level, the Census was headed by the Director General of the National Bureau of Statistics, Mainland in collaboration with the Chief Government Statistician, Zanzibar. The planning Group formed by the Director General of NBS and Chief Government Statistician consisted of staff from the Department of Agriculture Statistics of NBS, Department of Economic Statistics of OCGS, Department of Policy and Planning of the Ministry of Agriculture, Food Security and Cooperatives, Department of Policy and Planning of the Ministry of Livestock and Fisheries Development in Tanzania Mainland. Ministry of Livestock and Fisheries and Ministry of Agriculture and Natural Resources in Zanzibar. The Planning Group was responsible for all census operations. Implementation of the census activities at the regional level was overseen by the

Regional Statistical Managers of NBS and the Regional Agricultural Supervisor from the Prime Minister's Office, Regional Administration and Local Government. At the district level, the Census activities were managed by two supervisors from the Prime Minister's Office, Regional Administration and Local Government (PMO-RALG). The supervisors managed the enumerators who also came from PMO-RALG. As for Zanzibar, the implementation of the census activities at regional level was overseen by the Regional Statistical Officers and Regional Agricultural Officers. At District level the implementation of the census activities were managed by District Agricultural Development Officers (DADOs). In addition, there was a national mobile team to supervise the census operations.

The Censuses and Surveys Technical Working Group (CSTWG) under MKUKUTA provided support in sourcing financing, approving budget allocation and monitoring progress of the census. A Technical committee for the census was established with members from key stakeholder organizations and its main function was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulation and analytical reports prepared from the census data.

2.4.2 Tabulation Plan Preparation

The tabulation plan was developed considering the tabulations from previous censuses and surveys to allow trend analysis and comparisons as well as the needs of end users.

2.4.3 Sample Design

The Mainland sample consisted of 3,192 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. The total Mainland sample was 47,880 agricultural households. In Zanzibar, a total of 317 Enumeration Areas (EAs) were selected and 4,755 agricultural households were covered. National wide, all regions and districts were sampled except four urban districts (three from Mainland and one from Zanzibar).

In both Mainland and Zanzibar, a two stage sample was used. The number of villages/Enumeration Areas (EAs) was selected for the first stage with a probability proportional to the number of villages/EAs in each district. In the second stage, 15 households were selected from a list of

households in each village/EA using systematic random sampling. Table 1.1 gives the sample size of households, villages and districts for the Mainland and Zanzibar.

Table 2.1: Census Sample

Description	Mainland	Zanzibar	Total
Households	47,880	4,755	52,635
Villages/EA's	3192	317	3,509
Districts	133	9	142
Regions	21	5	26

2.4.4 Questionnaire Design and Other Census Instruments

The questionnaire was designed following users meetings to ensure that the questions asked were in line with the user data needs. Several features were incorporated into the design of the questionnaire to increase the accuracy of the data.

- Where feasible, all variables were extensively coded to reduce post enumeration coding error.
- The definition for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the respondent.
- The response to all questions was placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and Intelligent Character Recognition (ICR) technologies for data capture.
- Skip pattern were used to reduce unnecessary and incorrect coding of sections which do not apply to the respondent.
- Each section was clearly numbered, which facilitated the use of skip patterns and provide a reference for data type coding for the programming of CSPro and SPSS

Three other instruments were used:

- Village Listing Forms were used for listing of households in the village/EA and from this list, a systematic sample of 15 agricultural households were selected.

- A training manual which was used by the trainer for the cascade/pyramid training of supervisors and enumerators.
- Enumerator's Instructions Manual was used as reference material.

2.4.5 Field Pilot-Testing of the Census Instruments

The questionnaire was pilot-tested in four locations (Arusha, , Unguja and Pemba). This was done to check the wording, flow and relevance of the questions and to finalize crop lists, questionnaire coding and manuals. In addition, several data collection methodologies had to be finalized, namely, livestock numbers in pastoral communities, mixed cropping, use of percentages in the questionnaire and finalizing skip patterns and documenting consistency checks.

2.4.6 Training of Trainers, Supervisors and Enumerators

During the training, a cascade/pyramid training techniques were employed to maintain statistical standards. The top level of training was provided to 78 national and regional supervisors (65 from Mainland and 13 from Zanzibar). The trainers were members of the Planning Group from the National Bureau of Statistics, the sector Ministries of Agriculture and Office of the Chief Government Statistician, Zanzibar. In each region, three training sessions were conducted for the district supervisors and enumerators. The training concentrated on questionnaires, listing forms, field level census methodology and definitions. Emphasis was placed on consistency checking in the field. Tests were given to the enumerators and supervisors and the best 50 percent of the trainees were selected for the actual field work. The remaining 50% were assigned the work of listing the households in the villages they belong and they were later terminated. The best trained enumerators were assigned to list the remaining villages. Each enumerator was assigned to enumerate two villages.

2.4.7 Information, Education and Communication (IEC) Campaign

Radios, televisions, newspapers, leaflets, t-shirts and caps were used to create awareness of the Agricultural Sample Census to the public. This strategy helped in sensitizing the public for the field level activities in order to increase the response rate. The t-shirts and caps were given to the field staff and the village chairpersons. The village chairperson assisted to locate the selected households.

2.4.8 Data Collection

Data collection activities for the 2007/08 Agricultural Sample Census lasted for three months from June to August 2009. The interview method was used to collect data during the enumeration. Data collection was monitored by a hierarchical system of supervisors which included the Mobile Response Team, Regional and District Supervisors. The Mobile Response Team headed by the Manager of Agriculture Statistics Department, provided the overall direction to the field operations and responded to queries arising outside the scope of the training exercise. Decisions made on the definitions and procedures were then communicated back to all the enumerators via the Regional and District Supervisors. On the Mainland, each region had 2 Regional Supervisors (total of 42) and 2 district supervisors per district, (Total 266).

District supervision and enumeration were performed by staff from the Prime Minister's Office, Regional Administration and Local Government and the sector Ministry of Agriculture (PMO-RALG). Regional and national supervision was provided by senior staff from the NBS and sector Ministries of Agriculture. In Zanzibar, the enumeration was conducted by staff from the Ministry of Agriculture and Natural Resources and Ministry of Livestock and Fisheries. Supervision was provided by senior officers of the same Ministries and the Office of the Chief Government Statistician.

During the household listing exercise, 3,192 extension staff participated on the Mainland. A total of 177 enumerators participated during the listing exercise and enumeration using the small holder questionnaire in Zanzibar. A total of 1,596 enumerators were involved in data collection using the small holder questionnaire on the Mainland. Additional five percent of the enumerators were held as reserves in case of drop outs during the enumeration exercise.

2.4.9 Field Supervision and Consistency Checks

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded them in the questionnaire. The first check on the questionnaire was carried out by enumerators in the field during enumeration, followed by District, Regional and National supervisors. Supervisory visits at all levels of supervision focused on checking the completeness of the questionnaires and consistency. Inconsistencies encountered were corrected, and where necessary, a call back to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made by the district supervisors.

2.4.10 Data Processing

Data processing involved the following process:

- Data entry;
- Data structure formatting;
- Batch validation; and
- Tabulation.

Data Entry

Scanning and ICR data capture technology was used. This did not only increase the speed of data entry but also increased the accuracy due to reduction of keystroke errors. Interactive validation routines were incorporated into the ICR software to trap errors during the verification process.

Prior to scanning, all the questionnaires underwent a manual cleaning exercise by checking that the questionnaire had a full set of pages, correct identification and good hand-writing. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score was used to assess the quality of enumeration and supervision. CSPro was used for data entry of the questionnaires that were rejected by the ICR extraction application.

Batch Validation

A batch validation program was developed in CSPro in order to identify inconsistencies within a questionnaire. This was in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to more complex checking between variables. After data cleaning, the tables were prepared based on a pre-designed tabulation plan.

Tabulation

Statistical Package for Social Sciences (SPSS) was used to produce the census tables and Microsoft Excel was used to organize the tables and compute the additional indicators. Excel was also used to produce charts while Arc GIS was used for generating the maps.

Report Writing

The report writing focused on the regional comparisons, time series and national estimates. Microsoft Excel was used to produce charts; Arc GIS and Excel were used to generate maps, whereas Microsoft Word was used to compile and in the report writing.

Data Quality Control

A great deal of emphasis was placed on data quality throughout the whole exercise, from planning; questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this, it is believed that the census is highly accurate and representative of what was experienced at the field level during the census year. With very few exceptions, the variables in the questionnaire are within the norms for Tanzania and they follow the expected time series trends when compared to historical data.

2.5 Funding Arrangements

The 2007/08 Agricultural Sample Census was supported mainly by the Department for International Development (DFID) and the Japan International Cooperation Agency (JICA) which together, financed most of the operational activities. Other funds for the operational activities was from the Government of Tanzania. In addition, technical assistance was provided by the Food and Agriculture Organisation (FAO).

3 CENSUS RESULTS

This part of the report presents the census results for Mara region, based on the statistical data tables obtained from the 2007/08 Agriculture Sample Census. The results are presented in various forms including brief summaries, charts, condensed tables, graphs and maps to facilitate understanding of information among the users.

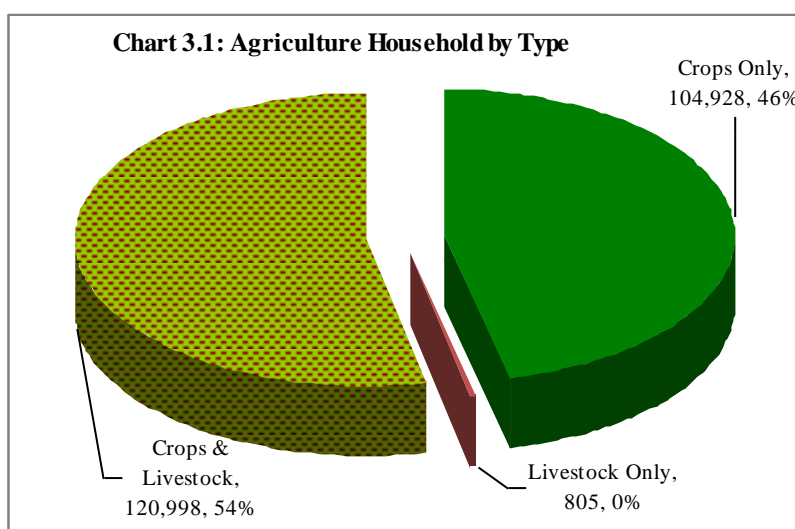
Comparisons are made between related variables and between districts. Comparisons are also made between the current and the 2002/03 survey results. The results are divided into four main sections which include household characteristics, crop results, livestock results and poverty indicators. In comparison, as for the 2002/03 censuses, in the current survey more effort has been expanded in analyzing the results in order to formulate solid conclusions.

3.1 Household Characteristics

3.1.1 Type of Households

The number of agricultural households in Mara region was 226,731. Most households in the region 120,998 (53.4%) were involved in crops as well as livestock production, 104,928 (46.2%) were involved in growing crops only, and only 805 households (0.3%) were involved in rearing livestock only. Pastoralist was not reported in Mara region.

The largest number of agricultural households was in Tarime district (38,080 hh, 31.5%), followed by Musoma Rural (27,522 households, 22.7%), Rorya (20,810) households, 17.2%), Bunda (17623 households, 0.1%), and Musoma Urban (102 households, 0.1%), (Chart 3.1 and Map 3.1, 3.2, 3.3, 3.4, 3.5, 3.6).

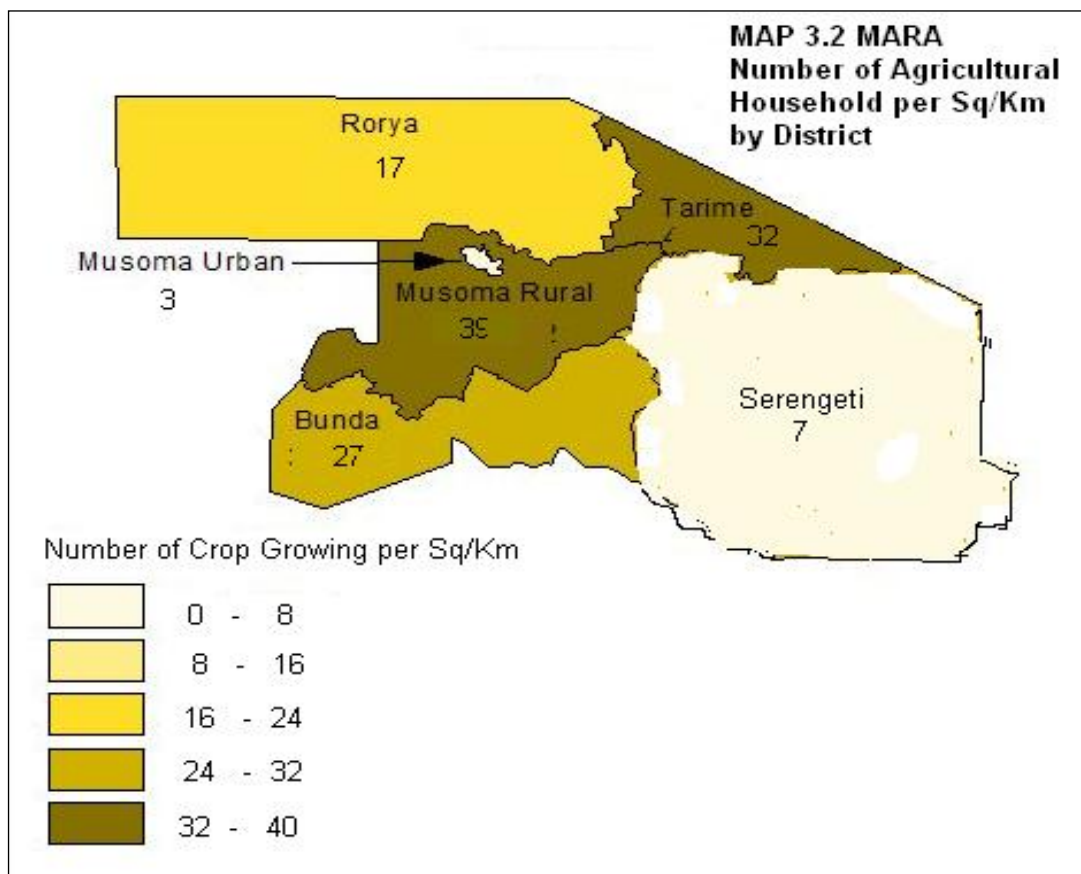
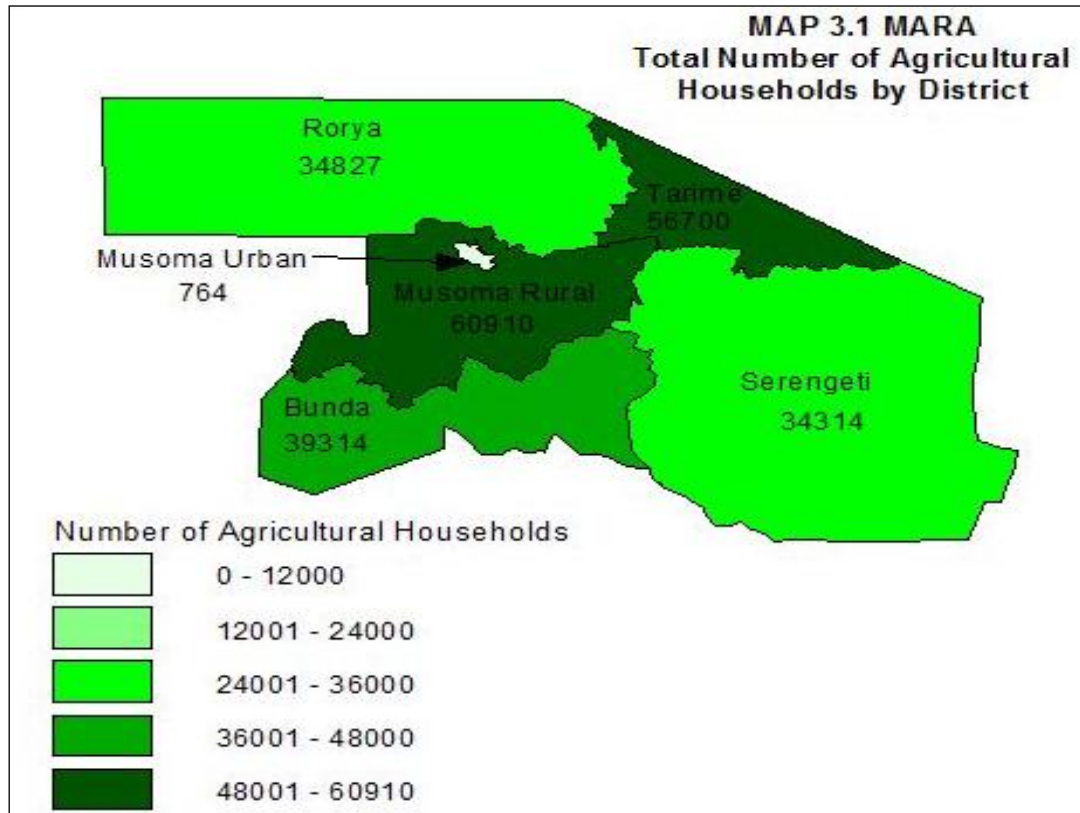


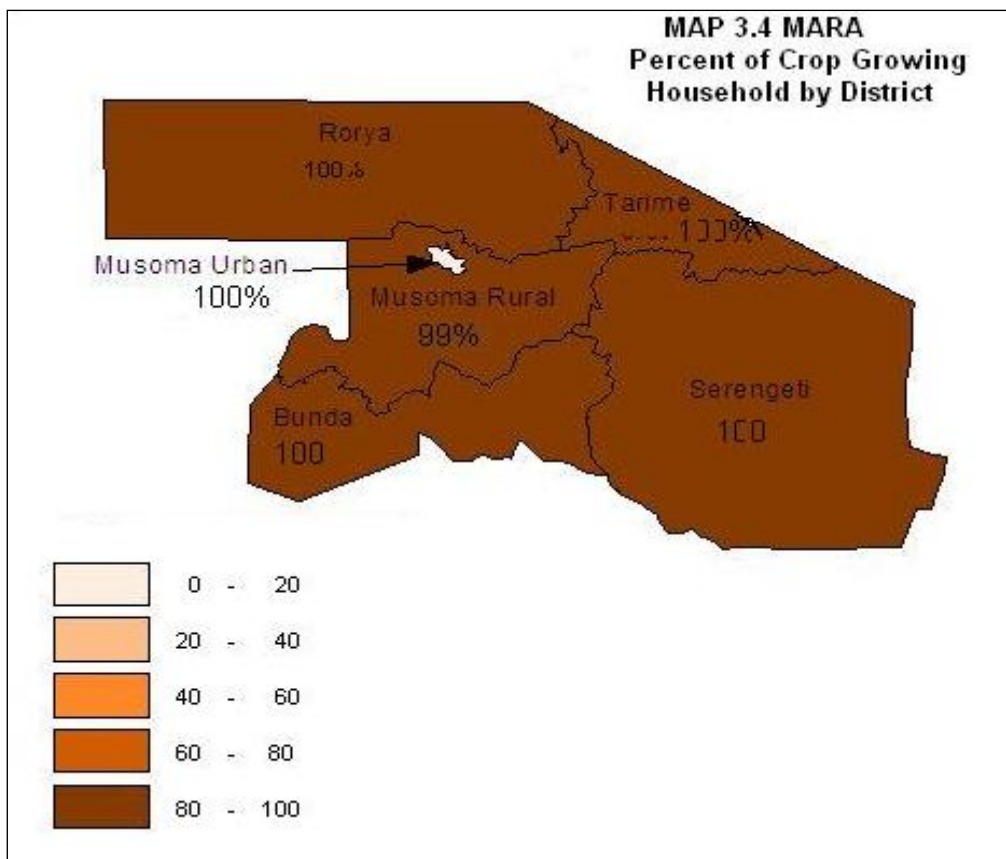
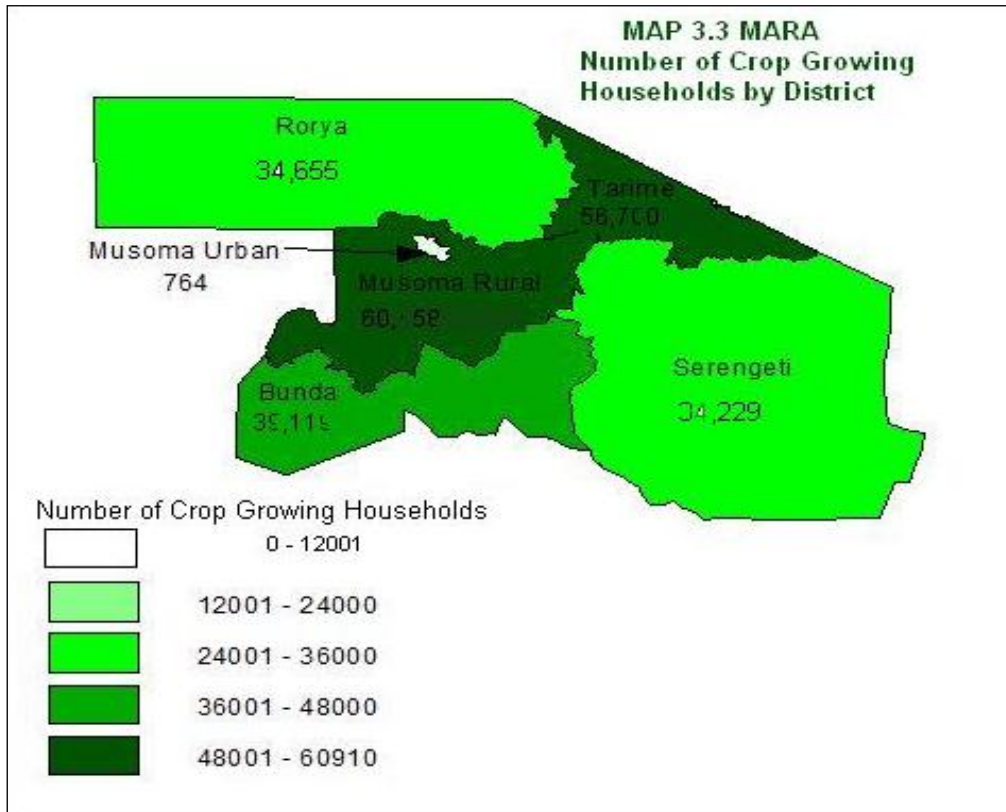
3.1.2 Livelihood Activities/Source of Income

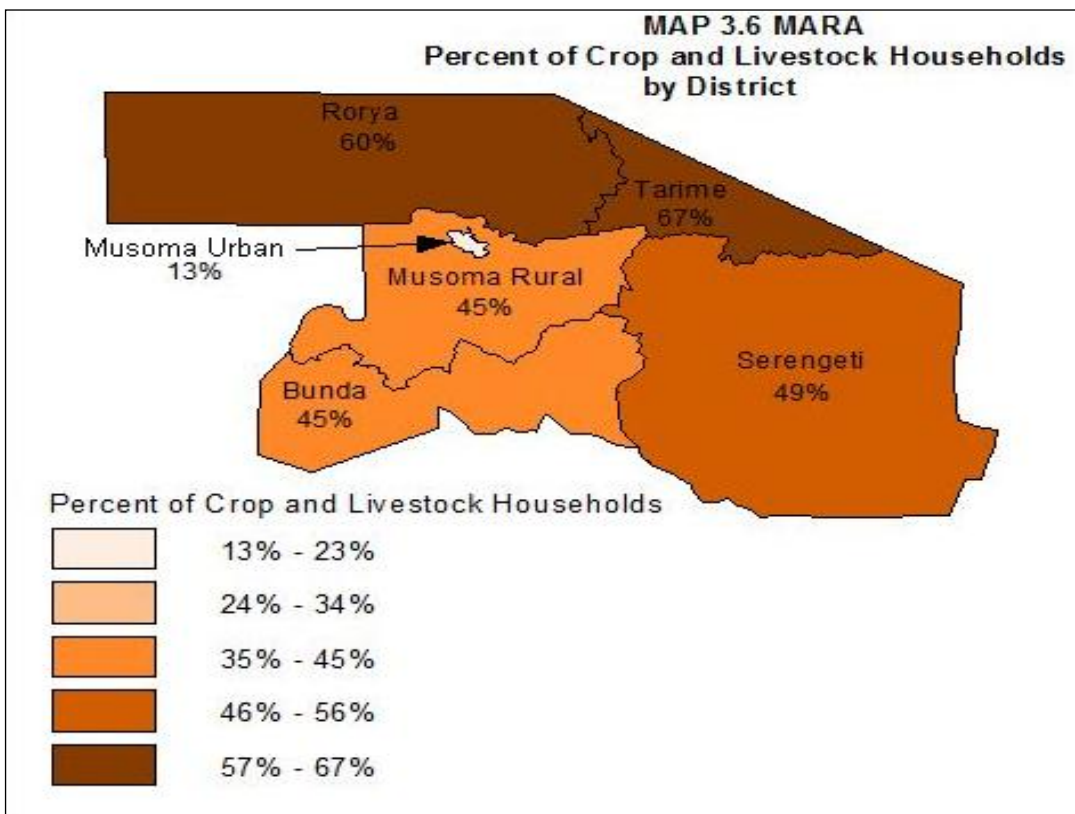
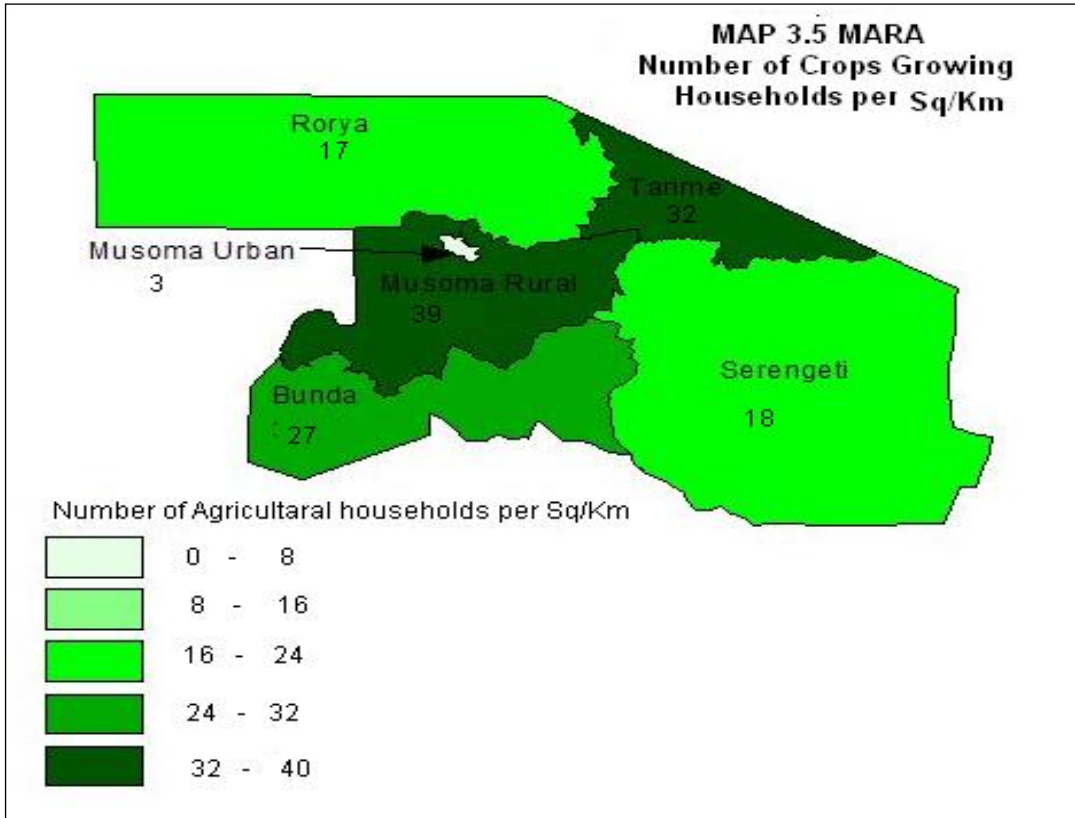
The census results for Mara region indicate that most of the agricultural households ranked annual crop/seaweed farming (84.2%) as an activity that provides most of their livelihood/ income followed by employment (6.3%), fishing (3.0%), and livestock keeping/herding (2.2%). (Table 3.1).

Table 3.1: Number of Heads of Agricultural Households by Main Activity and District , 2007/08 Agricultural Year

District	Crop/Seaweed Farming		Livestock Keeping / Herding		Fishing		Employment		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	51,520	90.9	280	0.5	0	0.0	2,800	4.9	2,100	3.7	56,700	100
Serengeti	30,586	89.1	1,186	3.5	0	0.0	1,864	5.4	678	2.0	34,314	100
Musoma Rural	46,472	76.3	451	0.7	4,662	7.7	5,715	9.4	3,610	5.9	60,910	100
Bunda	34,181	87.2	968	2.5	581	1.5	1,549	4.0	1,937	4.9	39,216	100
Musoma Urban	390	51.1	51	6.7	153	20.0	119	15.6	51	6.7	764	100
Rorya	27,862	80.0	2,150	6.2	1,376	4.0	2,236	6.4	1,204	3.5	34,827	100
Total	191,011	84.2	5,086	2.2	6,772	3.0	14,283	6.3	9,579	4.2	226,731	100

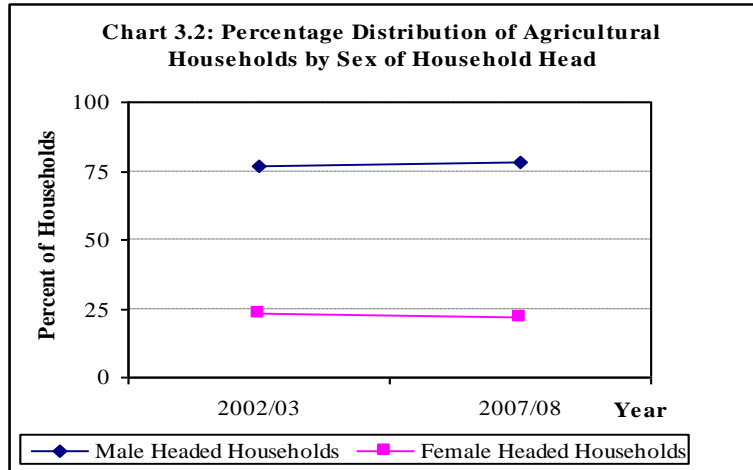






3.1.3 Age and Sex of Heads of Household

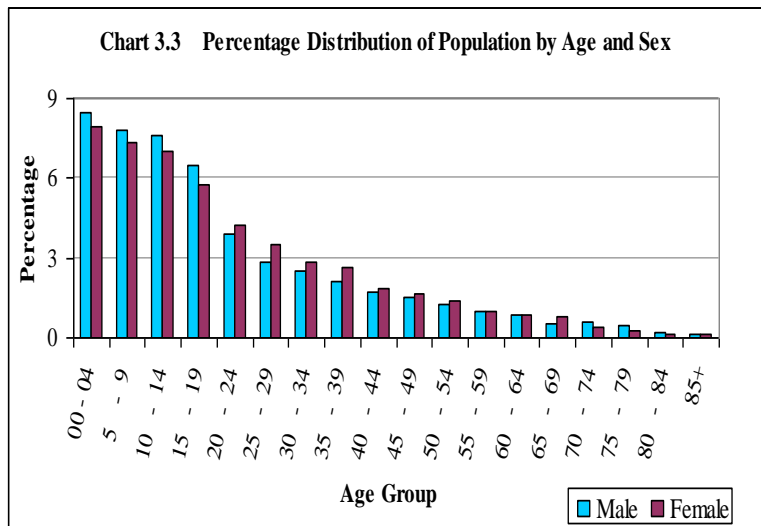
The number of male-headed agricultural households in Mara region was 175,721 (78% of the total regional agricultural households) while the female-headed households were 51,010 (22%). Compared to 2002/03 census the percentage for male headed agricultural households has increased from 77 percent 2002/03 to 78 percent 2007/08. While for female headed



agricultural households has decreased by 1 percent. The mean age of household heads in Mara region was 47 years (46 years for male heads and 49 for female heads)

3.1.4 Number and Age of Household Members

Mara region had a total rural agricultural population of 1,415,953 of which 710,332 (50%) were males and 705,621 (50%) were females. Whereas age group 0-14 constituted 46 percent of the total rural agricultural population, age group 15–64 (active population) was only 50 percent. Mara region had an average household size of 6.3 persons with Bunda and Musoma Rural having the highest household size of 7.0 and 6.9 while Rorya district had the lowest household size of 5.3 (Chart 3.3).



3.1.5 Level of Education

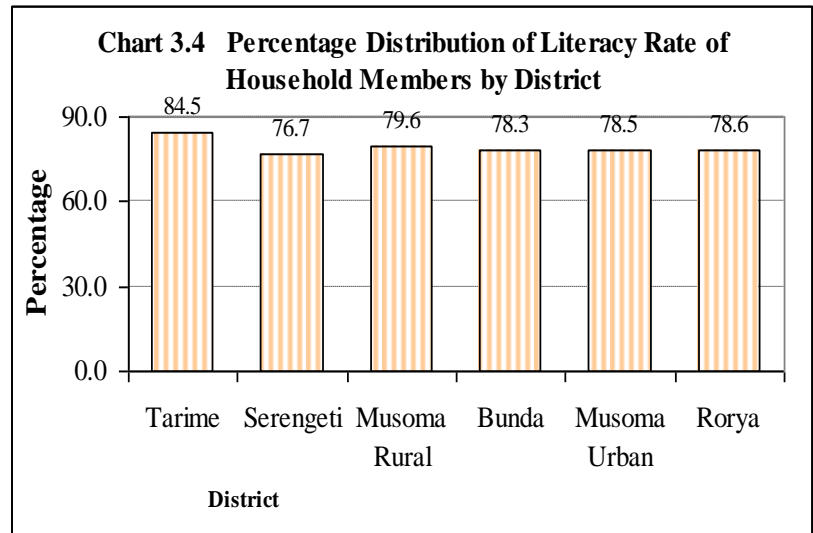
Information on literacy and level of education were obtained from all persons aged five years and above in all selected households.

Literacy

The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy was based on the ability to read and write Swahili, English or both.

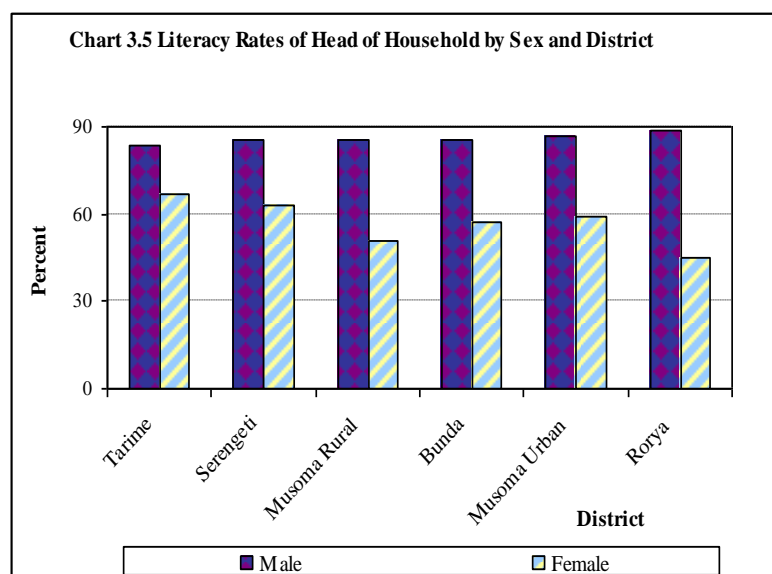
Literacy Level for Household Members

Mara region had a total literacy rate of 79.9 percent. The highest literacy rate was found in Tarime (84.5%), followed by Musoma Rural (79.6%), Rorya (78.6%), Musoma urban (78.5%), and Bunda (78.3%). The lowest literacy rate was recorded at Serengeti (76.7%) (Chart 3.4).



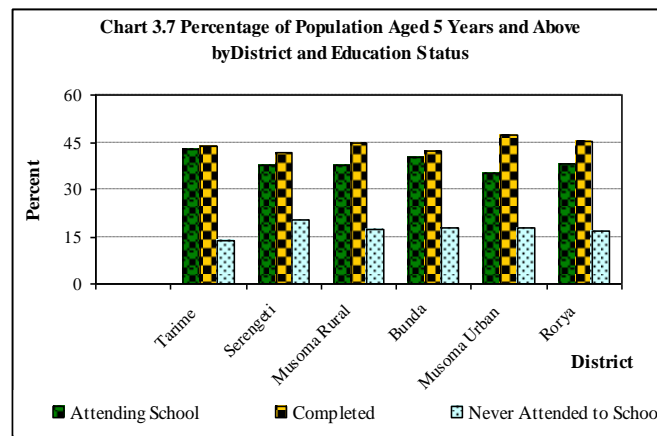
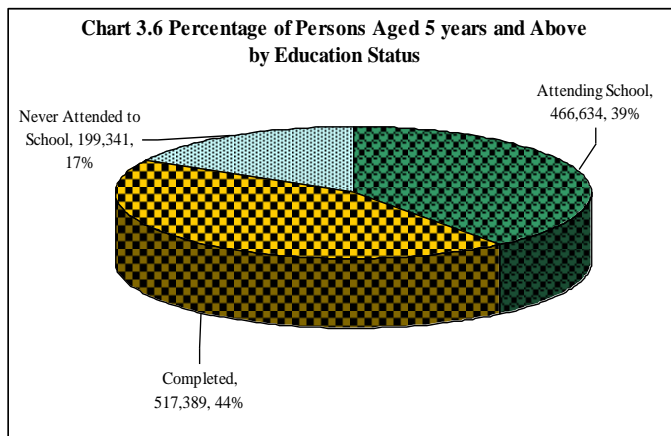
Literacy Rates for Heads of Households

The literacy rate for the heads of households in Mara region was 79 percent. The literacy rate for male heads was 85 and that of female heads was 56 percent. The literacy rate of male heads was higher than that of female heads in all districts. The district with the highest literacy rate amongst male heads of households was Rorya (89%), followed by Musoma Urban (87%) Serengeti and Bunda at 86% for each, Musoma Rural and Tarime had 85 and 83 percent respectively. Among female heads of household, the literacy rate was highest in Tarime with 67 percent, followed by Serengeti (63%) and Musoma Urban (59%). The lowest percent was found at Rorya (45%) (Chart 3.5).



Educational Status

Information on educational status was collected from individual agricultural households. The results show that 44 percent of the population aged 5 years and above in agricultural households in Mara region had completed different levels of education and 39 percent were still attending school. Those who have never attended school were 17 percent (Chart 3.6).



Agricultural households in Musoma Urban district had the highest percentage of population aged 5 years and above who had completed different levels of education (47%). This was followed by Musoma Rural and Rorya at 45 percent for each, Tarime district (44%), Serengeti and Bunda districts with 42 percent each. The number of those attending school is highest in Tarime district (43%) and lowest in Musoma Rural (35%). Serengeti district had the highest (21%) percentage of agricultural households members who had never attended school (Chart 3.7).

The number of heads of agricultural households with formal education in Mara region was 177,511 (78%), those without any education were 47,465 (21%) and those with only adult education were 1,756 (1%). The majority of heads of agricultural households in Mara region had primary level education (72%), whereas only 6 percent had post primary education (Chart 3.8).

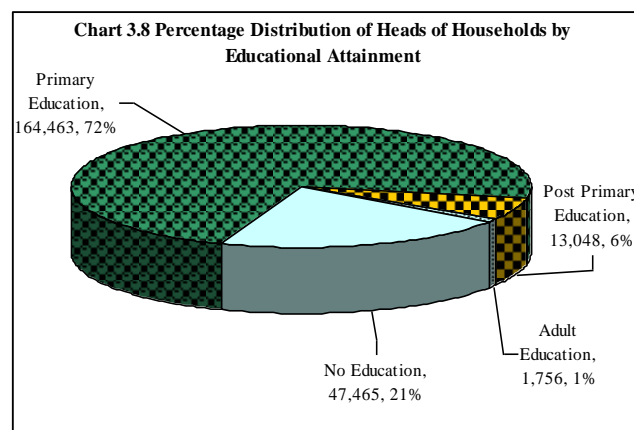


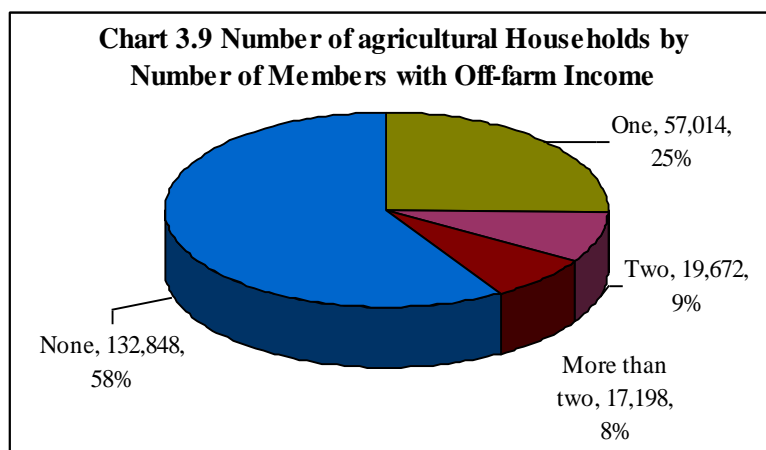
Table 3.2 Percent Distribution of Heads of Households by Educational Attainment

District	Primary Education		Post Primary Education		Adult Education		No Education		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	42,700	75	3,080	5	560	1	10,360	18	56,700	100
Serengeti	25,333	74	1,864	5	254	1	6,863	20	34,314	100
Musoma Rural	42,712	70	3,610	6	451	1	14,137	23	60,910	100
Bunda	28,081	72	2,518	6	387	1	8,231	21	39,216	100
Musoma Urban	441	58	85	11	17	2	221	29	764	100
Rorya	25,196	72	1,892	5	86	0	7,653	22	34,827	100
Total	164,463	73	13,048	6	1,756	1	47,465	21	226,731	100

With regard to the heads of agricultural households with primary level education in Mara region, Tarime had the highest percentage (75%) of heads of household with primary education, followed by Serengeti (74%), Rorya and Bunda each with 72 percent. Musoma urban had the lowest percentage (58%) of heads of household with primary level education and the highest percentage (11%) of the heads of agricultural households with post primary level education as well as adult education (2%). The highest percentage of heads of agricultural households with no education was high in Musoma Urban (29%), followed by Musoma Rural (23%), Rorya (22), Bunda (21%) and Serengeti (20%) (Table 3.2).

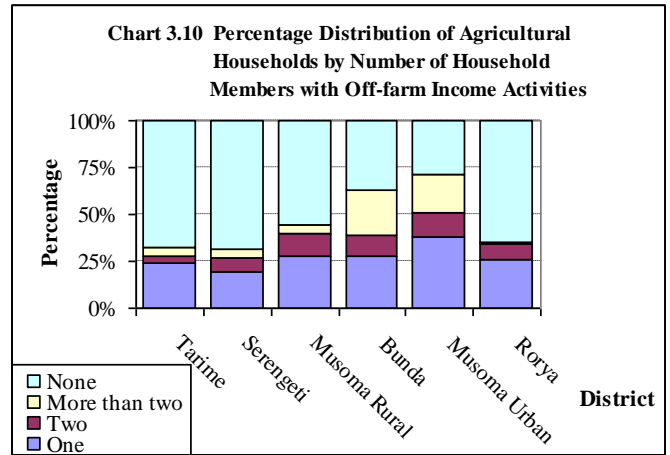
3.1.6 Off-farm Income

Off-farm income refers to cash generated from non-agricultural activities. This can be either from permanent employment (i.e., government, private sector or other), temporary employment or labourers. It also includes cash generated from



working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Mara region with 61 percent of agricultural household with off-farm income having one member with off-farm income. In the region 57,014 households (25% of the total agricultural households) had only one member aged 5 years and above involved in off-farm income generating activity, 19,672 households (9%) had two members involved in off-farm income generating activities, 17,198, households (8%) had more than two members involved in off-farm income generating activities. Households with no off-farm income generating activities accounted for 58 percent of the total agricultural households in Mara region. (Chart 3.9)

The districts with highest percentage of households with off-farm income were Musoma Urban (71.1%) followed by Bunda (63.2%), Musoma Rural (44.4%). Serengeti district had the lowest percentage of agricultural households with off-farm income. Bunda district (36%) had the highest percentage of agricultural households with more than one member with off-farm income followed by Musoma Urban (33%), however Tarime district had the lowest percent of households with more than one member having off-farm income (Chart 3.10)



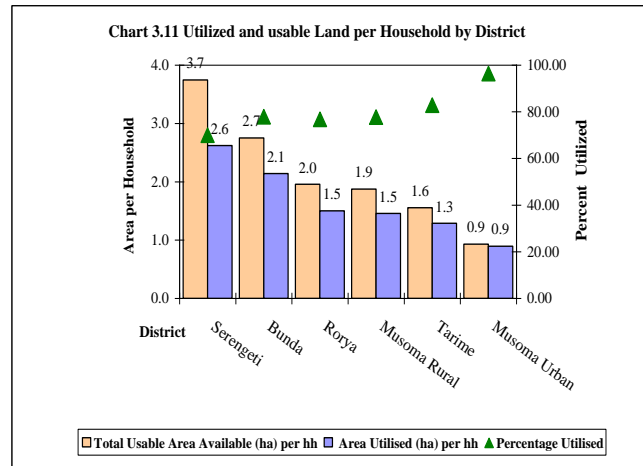
3.2 Land Use

Land area and planted area are two different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on the land in one year. Planted area is the total area of crops planted in a year and the area is summed if there were more than one crop on the same land per year. A number of terms are used in this section which requires defining for clarification as follows: Land available refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does NOT mean the total area of land that is designated as agriculture land in the country, however it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land.

Usable land refers to the available land minus the land that cannot be used e.g. bare rock, shallow soils, steep slopes, swamp areas etc. It does however include un-cleared bush, Utilised land refers to the land that was used during the year.

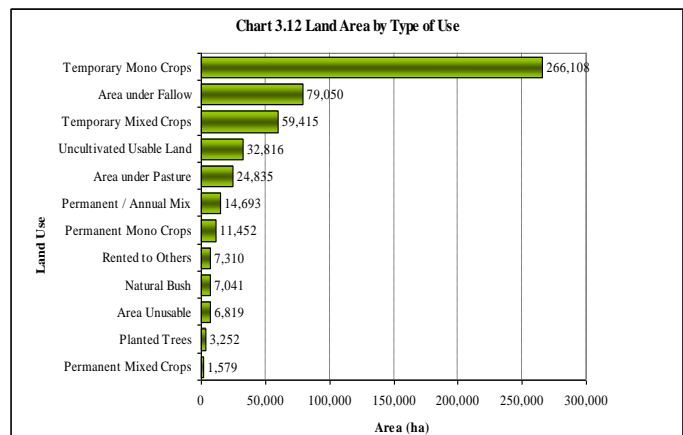
3.2.1 Area of Land Utilised

The total area of usable land available to smallholders in Mara region was 507,551ha, however the utilisable land was 388,644ha (76.6% of the land area available in the region). The regional average land area utilised for agriculture per household was only 1.7 ha. This figure is below the national average of 2.0 hectares. Large differences in land area utilised per household exist between districts with Serengeti having the largest area utilized per household at 2.6 hectares per household, followed by Bunda (2.1 ha/hh), Rorya and Musoma Rural (1.5 ha/hh). The smallest land area utilised per household was found in Musoma Urban (0.9 ha/hh). The percentage utilized of the usable land was highest in Musoma Urban (96.4%) and lowest in Serengeti (70.0%). About 76.6 percent of the total land available to smallholders was utilised implying that only 23.4 percent of the usable land available to smallholders was not used (Chart 3.11 and Map 3.7).



3.2.2 Types of Land Use

The area of land under temporary monocrop was 266,108 hectares (51.7% of the total land available to smallholders in Mara region), followed by area under fallow (79,050ha, 15.4%), area under temporary mixed crops (59,415ha, 11.6%), uncultivated usable land (32,816ha, 6.4%), area area under pasture (24,835ha, 4.8%), area under permanent /annual mix (14,693ha, 2.9%), area under permanent mono crops (11,452ha, 2.2%) , area rented to others (7,310ha, 1.4%), area under natural bush (7,041ha, 1.4%) area unusable (6,819ha, 1.3%), area under planted tree (3,252ha, 0.6%) and area under permanent mixed crops (1,579ha, 0.3%) (Chart 3.12).

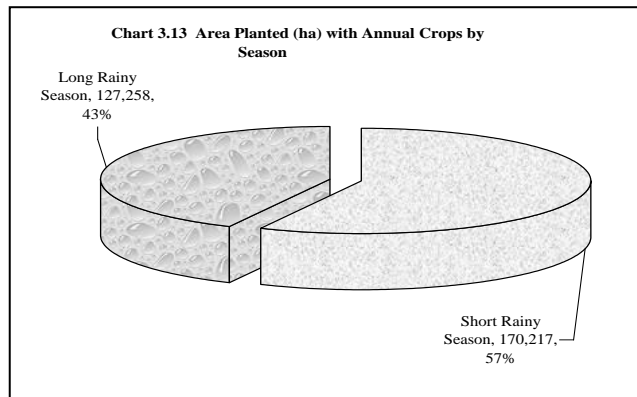


3.3 Annual Crops and Vegetable Production

Mara region has two rainy seasons, namely the short rainy season (October to December) and the long rainy season (March to May). The quantity of crops produced in both seasons will be used as a base for comparison with the past surveys and censuses.

3.3.1 Planted Area

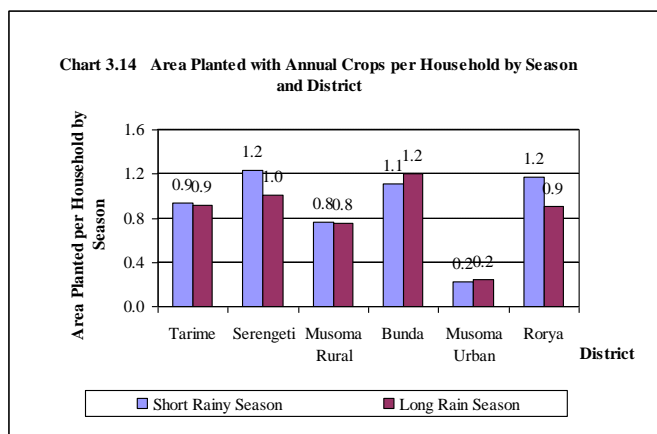
The area planted with annual crops and vegetables in Mara region was 297,475 hectares out of which 170,217 hectares (57%) were planted during the short rainy season and 127,258 hectares (43%) during long rainy season (Chart 3.13).

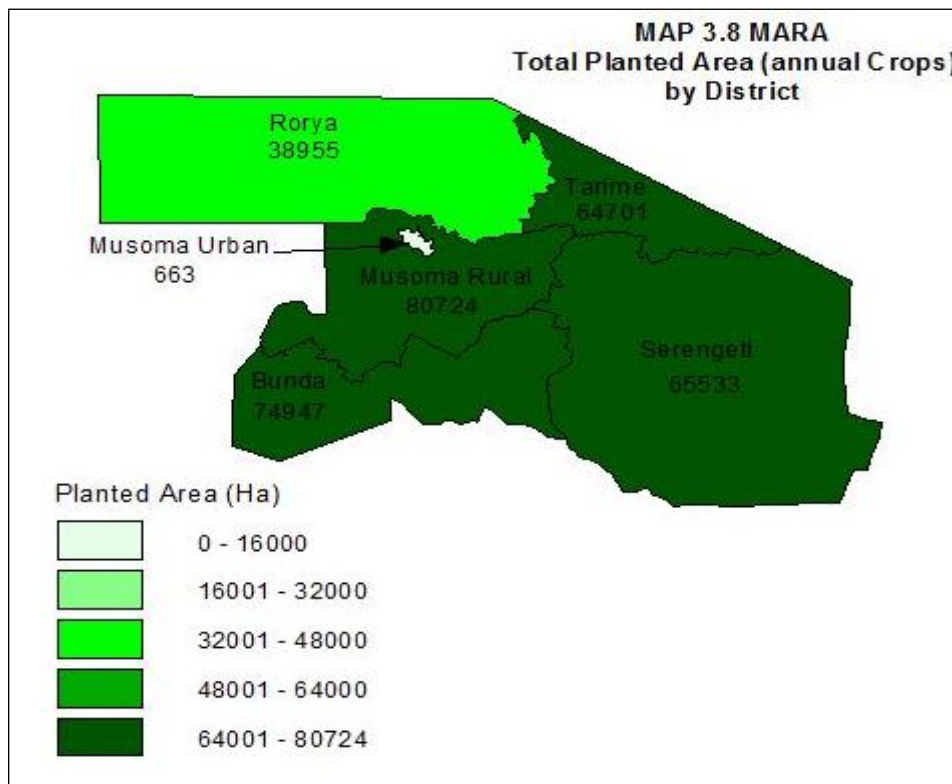
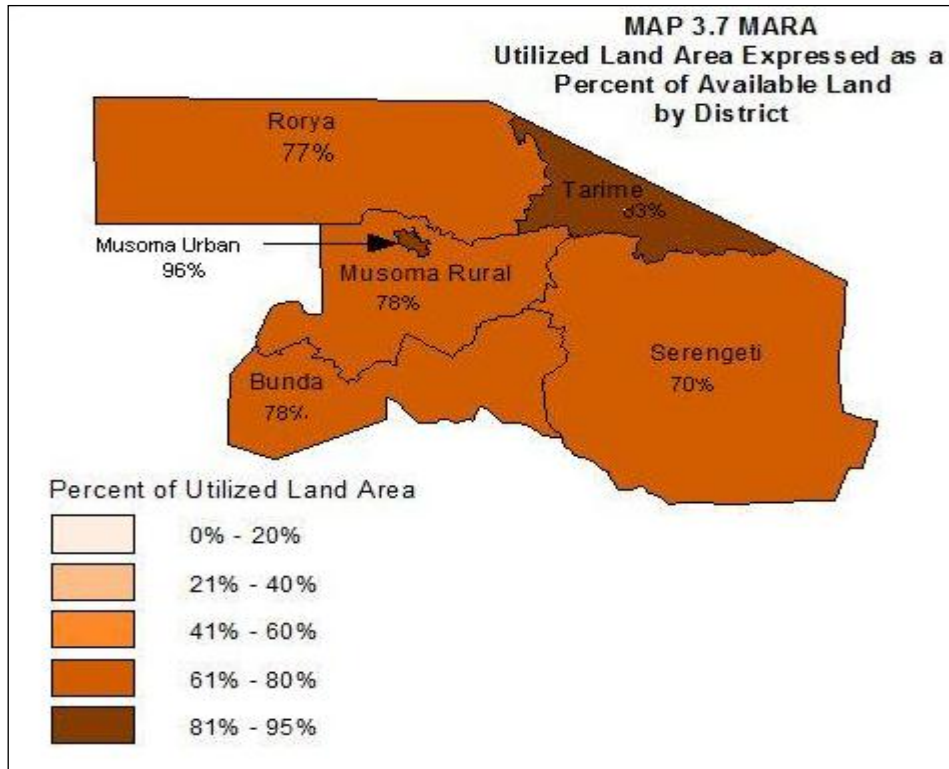


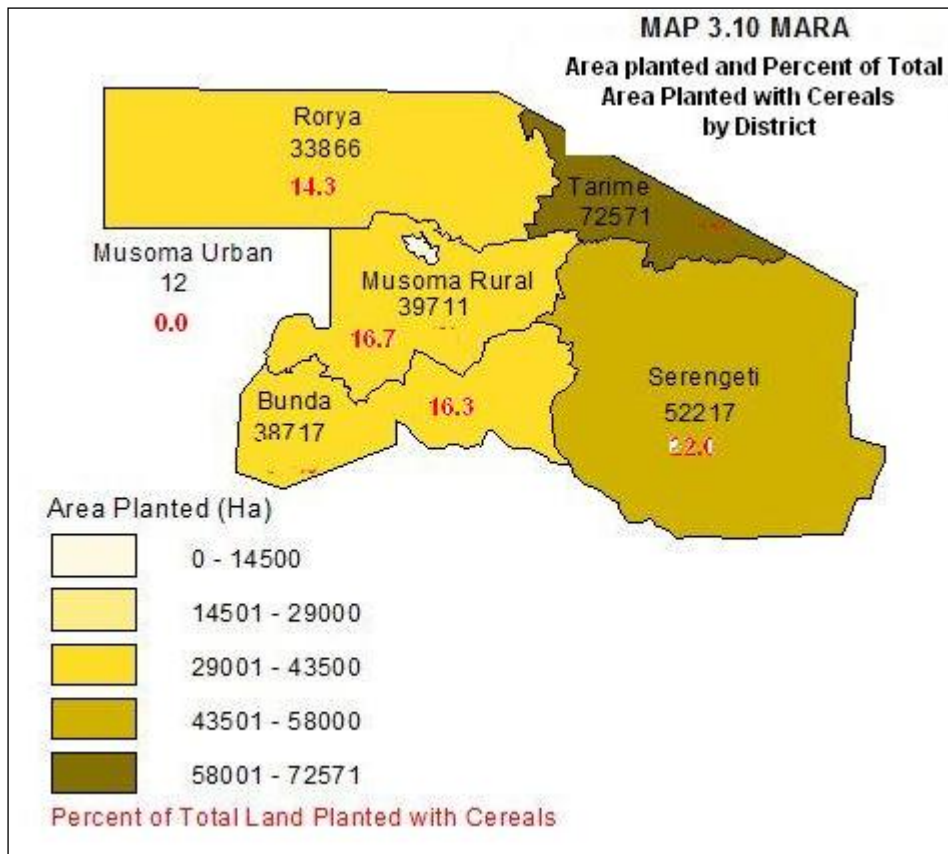
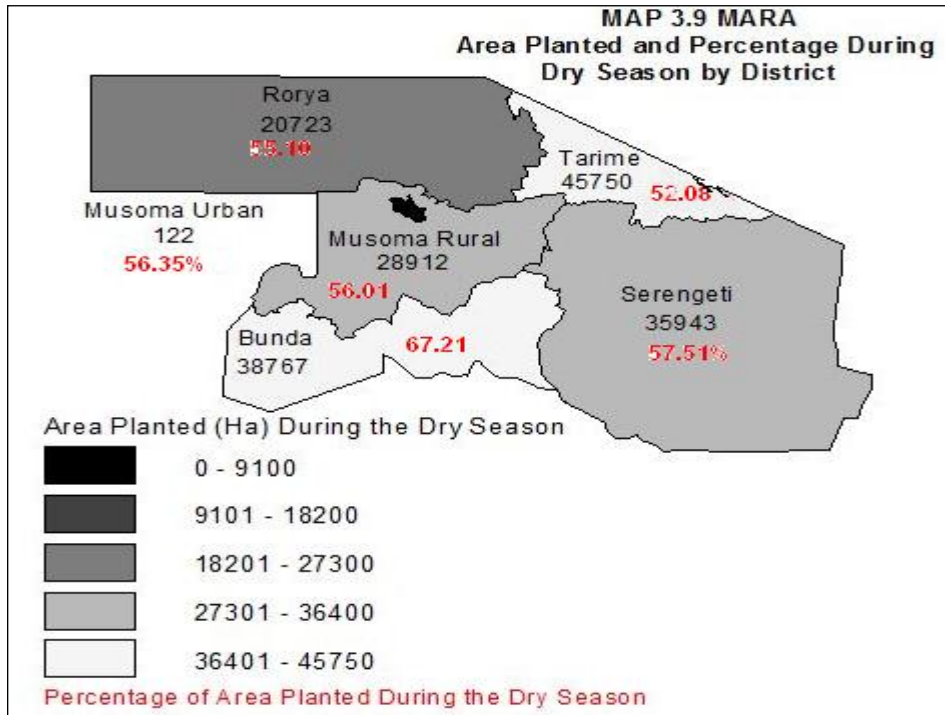
The average areas planted per household during the short and long rainy seasons was 1.0 and 0.9 ha respectively. The district with the largest area planted per household in Mara region was Serengeti and Rorya districts with 1.2 hectares per household each, followed by Bunda (1.1 ha/hh) and Tarime (0.9ha/hh). The district with the smallest average area planted per household was Musoma Urban (0.2 ha), followed by Musoma Rural (0.8ha/hh). While in Bunda the average planted area per household during the short rainy season is lower than that of the long rainy season, the reverse is true for the rest of the districts in the region, except in Musoma Urban, Tarime and Musoma Rural districts where the average planted area per household during the short and the long rainy seasons are the same.

The average area planted per household during the long rainy season in Mara region was 0.9 hectares, however, there were large district differences.

Musoma Urban had the smallest planted area per household of 0.2 ha, in both short and long rainy seasons. Bunda had the largest planted area per household (1.2 ha) during long rainy season, followed by Serengeti (1.0ha), Tarime and Rorya (0.9ha each), and Musoma Rural (0.8ha) (Chart 3.14 and Map 3.8 & Map 3.9).





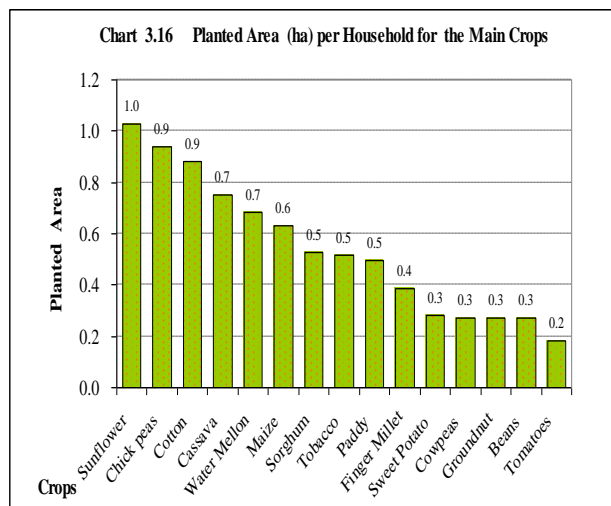
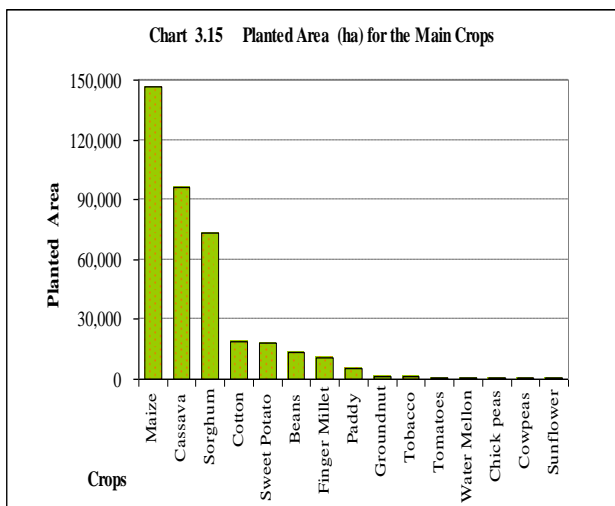


Analysis of the Most Important Crops

Results on crop production are presented in two different sections. The first section compares the importance of each crop regardless of whether they are annual or permanent. The second section contains a more detailed analysis on production based on crop types.

3.3.2 Crop Importance

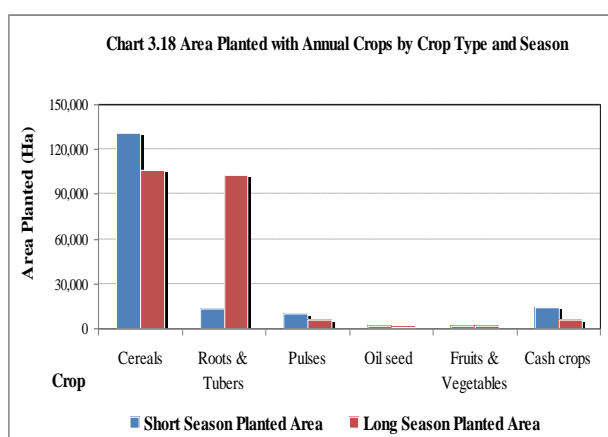
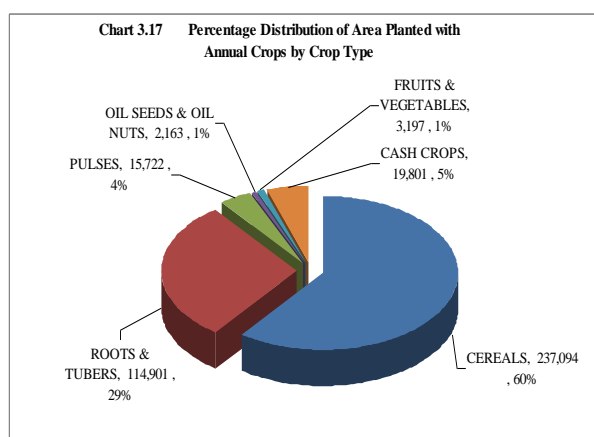
The most dominant annual crop grown in Mara region was Maize, which had a planted area 1.5 times greater than cassava, which had the second largest planted area. The area planted with maize constituted 49.3 percent of the total area planted with annual crops in the region. Other crops in order of their importance (based on area planted) are Cassava (32%), Sorghum (25%), cotton and sweet potatoes each with 6 percent, cowpeas (5.1%) beans (4.6%), finger millet (3.6%), and paddy (1.9%). The remaining crops are minor and accounted for less than 1 percent (Chart 3.15). The area planted per household was large for sunflower (1ha/hh), followed by chick peas and cotton with 0.9ha/hh each. The remaining crops ranged from an area of 0.2 to 0.8 hectare per household (Chart 3.16).



3.3.3 Crop Types

Cereals are the main crop type grown in Mara region. The area planted with cereals was 237,094 ha (60% of the total planted area), followed by roots and tubers with 114,901 ha (29%), annual cash crops (19,801 ha, 5%), pulses (15,722 ha, 4%), , fruits and vegetables (3,197 ha, 1%) and oil seeds (2,163 ha, 1%) (Chart17).

Cereals, roots and tubers, pulses and cash crops were dominant in both short and long rainy seasons. Cereals had the largest planted area in both seasons, followed by roots and tubers in the long rain season and cash crops in the short rain season. (Chart 3.18).



3.3.3.1 Cereal Crop Production

The total production of cereals was 369,540 tonnes. Maize was the dominant cereal crop with a production of 256,552 tonnes which was 69 percent of total cereal crop production, followed by sorghum (25%), finger millet and paddy with 3 percent each. Tarime district had the largest planted area of cereals in the region (72,571 ha) followed by Serengeti (52,217 ha), Musoma Rural district (39,711 ha), Bunda district (38,717 ha) and Rorya (33,866 ha). Musoma Urban had the smallest planted area with cereals (12ha) (Table 3.3 and Map 3.10).

Table 3.3 Area, Production and Yield of Cereal Crops by District

District	Short Rainy Season			Long Rainy Season			Total		
	Area planted (ha)	Quantity harvested	Yield (t/ha)	Area planted (ha)	Quantity harvested	Yield (t/ha)	Area planted (ha)	Quantity harvested	Yield (t/ha)
Tarime	36,459	82,605	2.27	36,112	75,910	2.1	72,571	158,515	2.18
Serengeti	28,259	42,205	1.49	23,958	36,208	1.51	52,217	78,413	1.5
Musoma Rural	19,965	26,205	1.31	19,746	29,589	1.5	39,711	55,794	1.4
Bunda	27,451	27,096	0.99	11,266	10,095	0.9	38,717	37,191	0.96
Musoma Urban	5	9	1.68	7	12	1.7	12	20	1.69
Rorya	18,523	21,274	1.15	15,343	18,332	1.19	33,866	39,607	1.17
Total	130,662	199,394	1.53	106,432	170,146	1.6	237,094	369,540	1.56

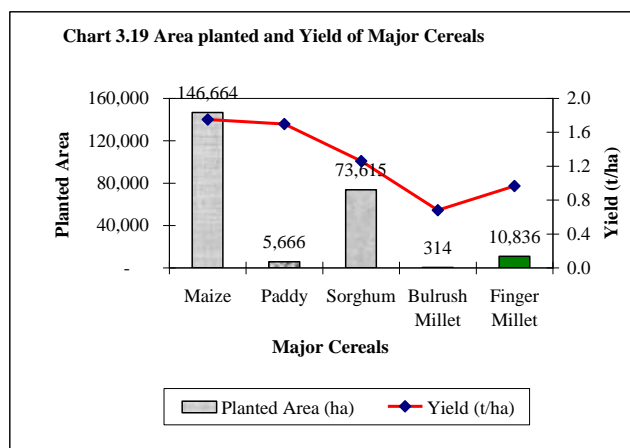
The total area planted with cereals during both the short and long rainy seasons was 237,094 ha out of which 130,662 ha (55.1%) were planted in short rainy season and 106,432 ha (44.9%) were planted during the long rainy season. The long rainy season accounted for 46 percent of the total

cereals produced in both seasons. The area planted with maize during the long rainy season was about 61 percent of the total area planted with cereals in that season followed by sorghum (31%) and finger millet (5%) (Table 3.4).

Table 3.4 Area Planted and Production of Cereal Crops by Crops and Season

Crop	Short Rainy Season			Long Rainy Season			Total Area planted (ha)
	Area planted (ha)	Percent of Area Planted	Amount Harvested (tonnes)	Area planted (ha)	Percent of Area Planted	Amount Harvested (tonnes)	
Maize	81,917	62.7	39,568	64,747	60.8	116,984	46,664
Paddy	2,946	2.3	3,674	2,720	2.6	5,944	5,666
Sorghum	40,647	31.1	51,642	32,968	31	41,052	3,615
Bulrush Millet	39	0	44	274	0.3	169	314
Finger Millet	5,114	3.9	4,466	5,722	5.4	5,997	10,836
Total	30,662	55.1	99,394	106,432	44.9	170,146	237,094

The area planted with maize was dominant and it represented 62 percent of the total area planted with cereal crops, followed by sorghum (31%), finger millet (5%), paddy (3%) and bulrush millet (0.1%). The yields of the main cereal crops were as follows; maize and paddy 1.7 tonnes per hectare each of the two crops, sorghum 1.3 t/ha ,finger millet 1t/ha and Bulrush Millet 0.7 tonnes per hectare (Chart 3.19).



Maize

Maize dominates the production of cereal crops in the region. The number of households growing maize in Mara region during the long rainy season was 104,065 (46 percent of the total crop growing households in the region). The total production of maize was 116,984 tonnes from a planted area of 64,747 hectares resulting in a yield of 1.8 t/ha.

There was a slight increase in maize production from 107,000 tonnes in 2003 to 116,984 in 2008.

The average area planted with maize per household in the long rainy season was 0.6 hectares, however it ranged from 0.1 hectares in Musoma Urban district to 0.7 hectares in Musoma Rural district. Tarime district had the largest area of maize (50,907 ha), followed by Serengeti (28,597 ha), Musoma Rural (24,166 ha), Bunda (23,053 ha) and Rorya (19,935 ha). Musoma Urban had the lowest planted area with maize of 7 hectares (Chart 3.20 & Map 3.11 & 3.12).

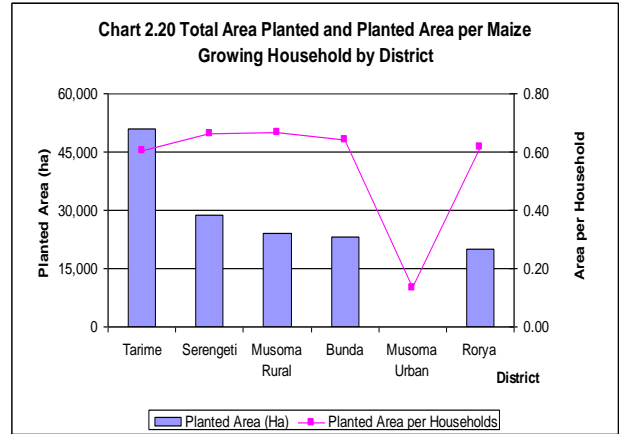
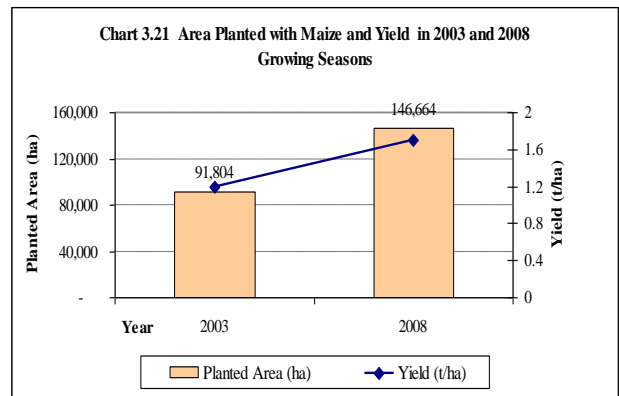


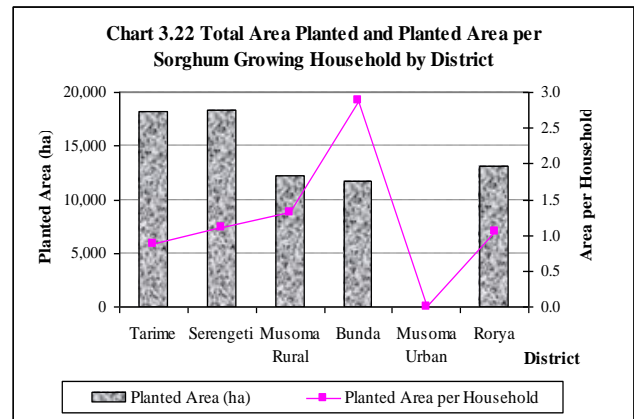
Chart 3.21 shows that from the year 2003 to 2008 there has been a gradual increase in yield from 1.2 tons/ha to 1.7t/ha as well as a sharp increase in area planted from 91,804 in 2003 hectares to 146,664 in 2008. The quantity produced more than doubled over the same period from 110,665 tonnes to 256,552 in both short and long rainy seasons. This trend indicates that the increase in maize production in the region was associated with the increase in yield.



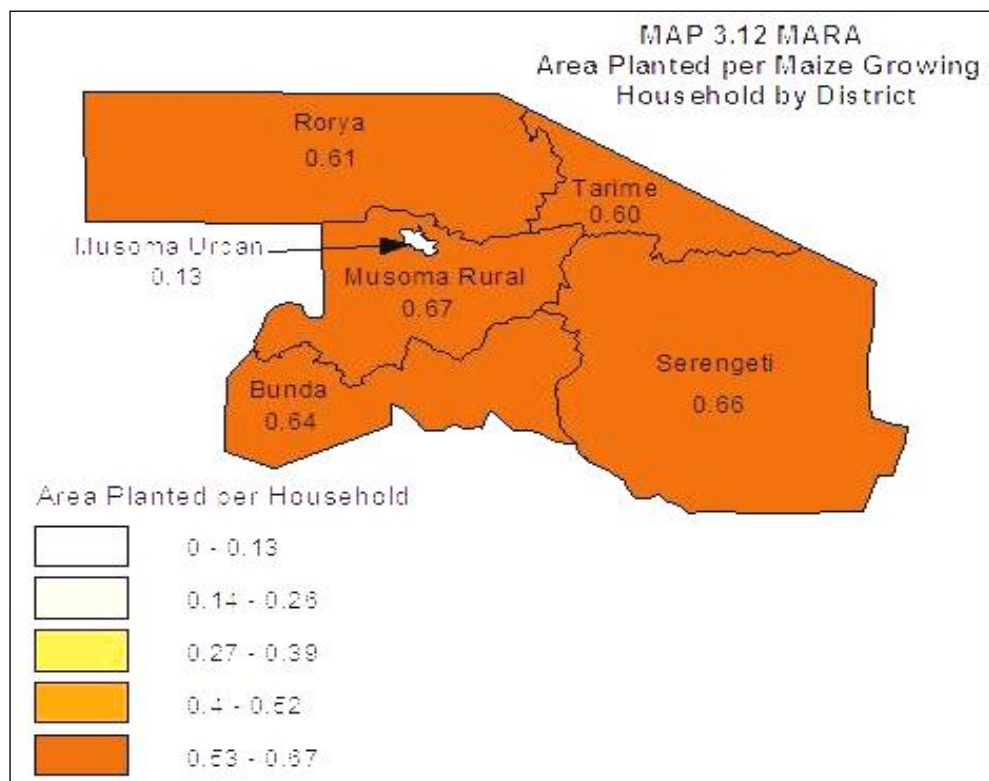
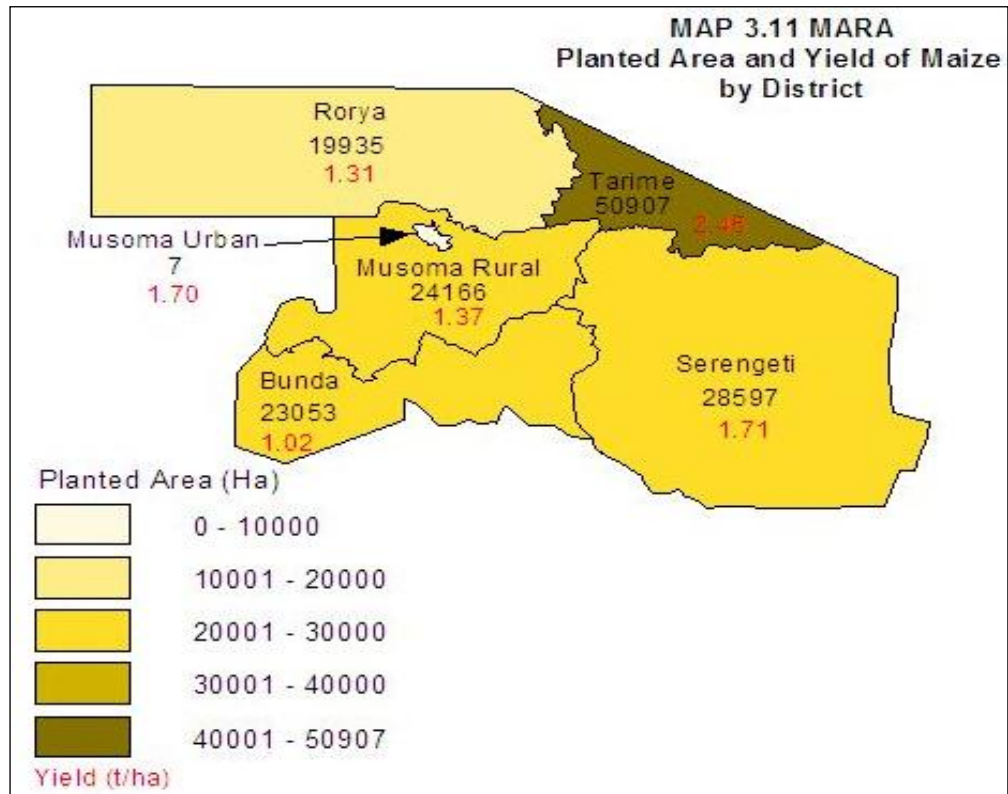
Sorghum

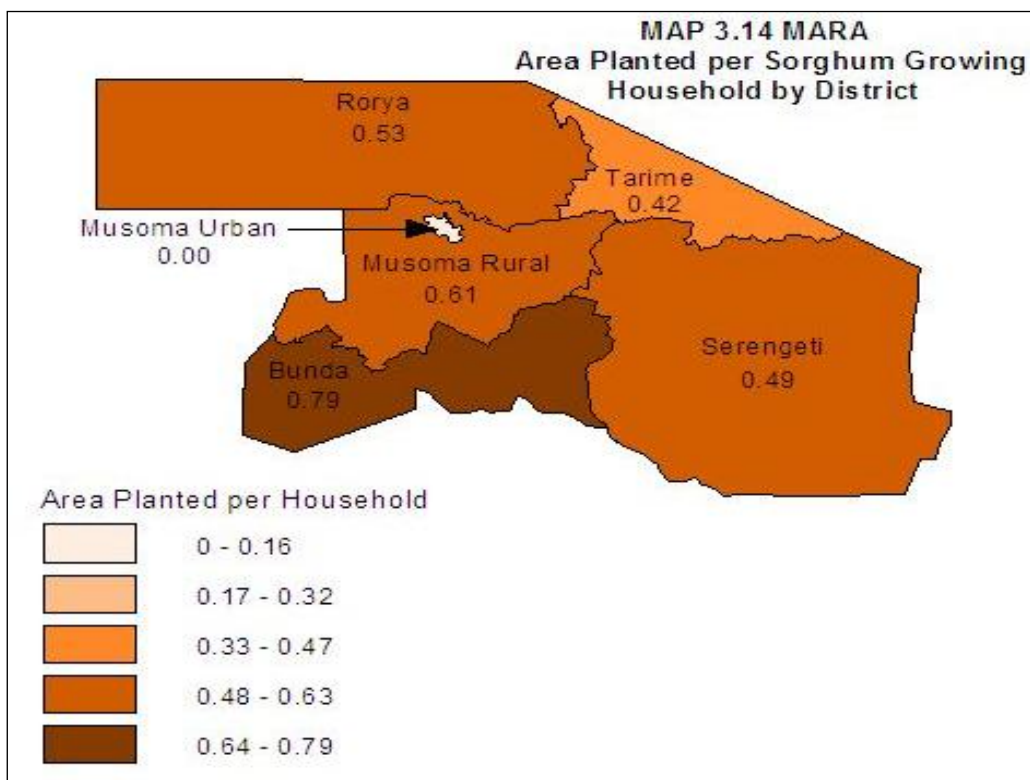
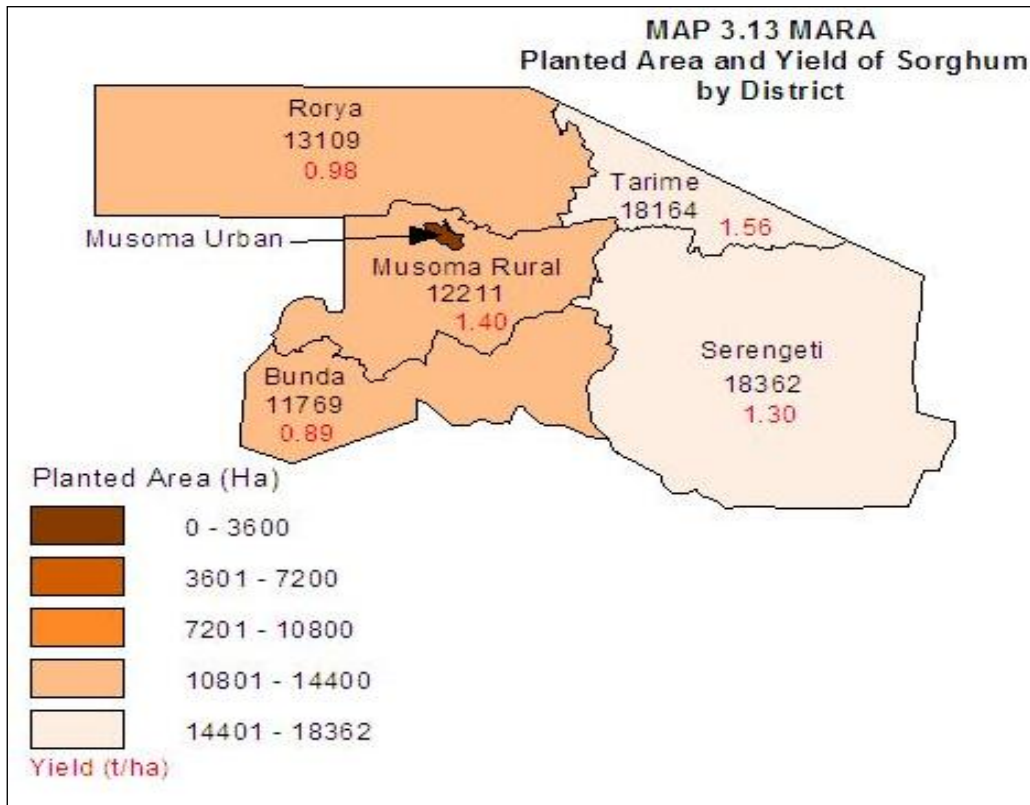
Sorghum was the second most important cereal crop in the region in terms of planted area. The number of households that grew sorghum in Mara region during the long rainy season was 63,242. This represents 46 percent of the total crop growing households in Mara region in the long rainy season. The total production of sorghum was 92,695 tonnes from a planted area of 73,615 hectares resulting in a yield of 1.3 t/ha.

The district with the largest area planted with sorghum was Serengeti (18,362 ha), followed by Tarime (18,164 ha), Rorya (13,109 ha), Musoma Rural (12,211 ha), and Bunda (11,769 ha). Sorghum was not reported in Musoma Urban (Map 3.13). There are significant variations in the average area planted per sorghum growing household among the districts ranging from 0.4 in Tarime district to 0.8 ha in Bunda (Chart 3.22 and Map 3.14).



There was a decrease in sorghum production from 55,000 tonnes in 2003 to 41,052 tonnes in 2008. The area planted with sorghum has increased over the five year period from from 5,500 hecatres in 2003 to 73,615 hectares in 2008.





Other Cereals

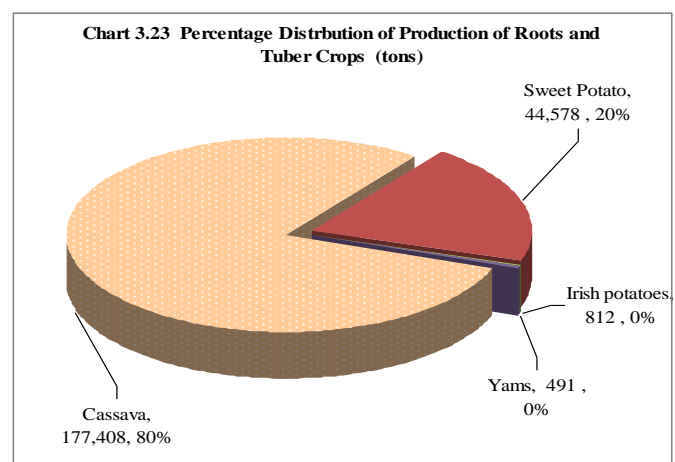
Other cereals (paddy, finger millet and bulrush millet) were produced in relatively small quantities compared to maize and sorghum. The district with the largest area planted with finger millet was Serengeti (2,034 ha, 35.5%) followed by Tarime (1,672 ha, 29.2%), Bunda (1,029 ha, 18%), Rorya (561 ha, 9.8%), and Musoma Rural (426 ha, 7.4%). Finger millet production was not recorded in Musoma Urban. The district with the highest area planted with paddy was Musoma Rural (1,324 ha, 48.1%), followed by Serengeti (712 ha, 26.2%), Bunda (314 ha, 11.5%) and Tarime (283 ha, 10.4%). While paddy was not recorded in Musoma Urban, Rorya district had the smallest planted area with paddy of 87 hectares, representing 3.2 percent. A small planted area of bulrush millet was found in Serengeti district (274 ha, 10%) (Table 3.5).

Table 3.5 Area Planted, Quantity Harvested and Percentge of Total Area Planted With Other Cereals During Long Rainy Season

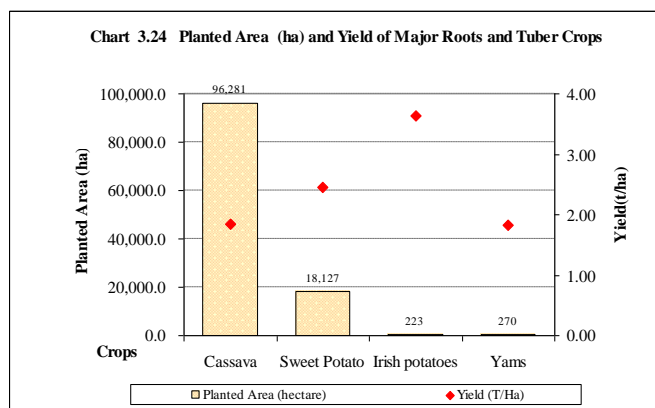
District	Paddy			Bulrush Millet			Finger Millet		
	Actual Planted Area (ha)	Percent of Total Area Planted with Paddy	Quantity Harvested (tons)	Actual Planted Area (ha)	Percent of Total Area Planted with Bulrush Millet	Quantity Harvested (tons)	Actual Planted Area (ha)	Percent of Total Area Planted with Finger Millet	Quantity Harvested (tons)
Tarime	283	10.4	630	.	0.0	.	1,672	29.2	2,756
Serengeti	712	26.2	1,333	274	10.1	169	2,034	35.5	1,959
Musoma Rural	1,324	48.7	3,317	.	0.0	.	426	7.4	374
Bunda	314	11.5	484	.	0.0	.	1,029	18	664
Musoma Urban	.	0	.	.	0.0	.	.	0	.
Rorya	87	3.2	179	.	0.0	.	561	9.8	243
Total	2,720	100	5,944	274	10.1	169	5,722	100	5,997

3.3.3.2 Roots and Tuber Crops Production

The total production of roots and tubers was 223,289 tonnes. Cassava production was the highest among roots and tuber crops in the region with a total production of 177,408 tonnes representing 79.5 percent of the total production of roots and tuber crops in the region. This was followed by sweet potatoes (44,578 tonnes, 20%), Irish potatoes (812 tonnes, 0.4%), and yams (491 tonnes, 0.2%) (Chart 3.23).



Cassava was the most important crop among root and tuber crops in Mara region in terms of planted area (96,281 ha, 83.8% of the total area planted with roots and tubers) followed by sweet potatoes (18,127 ha, 15.8%), yams (270 ha, 0.2%), and Irish potatoes (223 ha, 0.2%) (Chart 3.24).



Cassava is produced in both the long and the short rainy seasons. However, it was not possible to separate cassava production by season as the growth period spans both seasons, even over a year for certain varieties. Because of this, cassava has been combined and reported under the long rainy season only. Because of this it is difficult to determine the total planted area and production for roots and tubers for individual seasons. Cassava had the largest planted area (96,281 ha) followed by sweet potatoes with large area planted in both short and long rainy seasons .Irish potatoes had the highest yields of 3.6 t/ha, followed by sweet potatoes 2.5 t/ha, and that of yams and cassava was 1.8 t/ha. (Table 3.6).

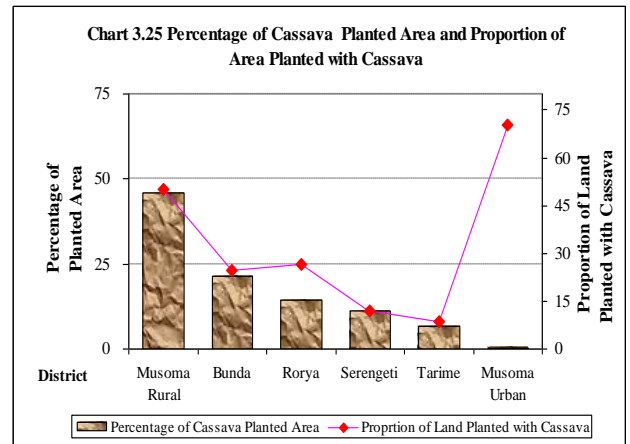
Table 3.6 Area, Production and Yield for Major Roots and Tuber Crops in Short and Long Rainy Seasons

Crop	Number of Household	Planted Area (hectare)	Percent of Planted Area	Quantity Harvested (tons)	Yield
Cassava	128,383	96281	83.8	177,408	1.8
Sweet Potato	64,200	18,127	15.8	44,578	2.5
Irish potatoes	1,163	223	0.2	812	3.6
Yams	1,033	270	0.2	491	1.8
Total		114,901	100.0	223,289	1.9

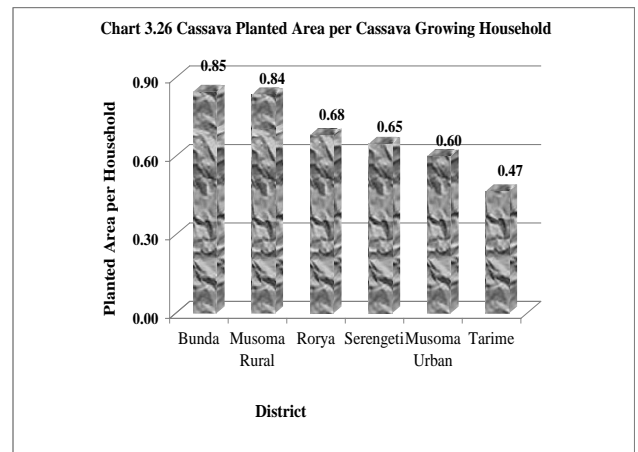
Cassava

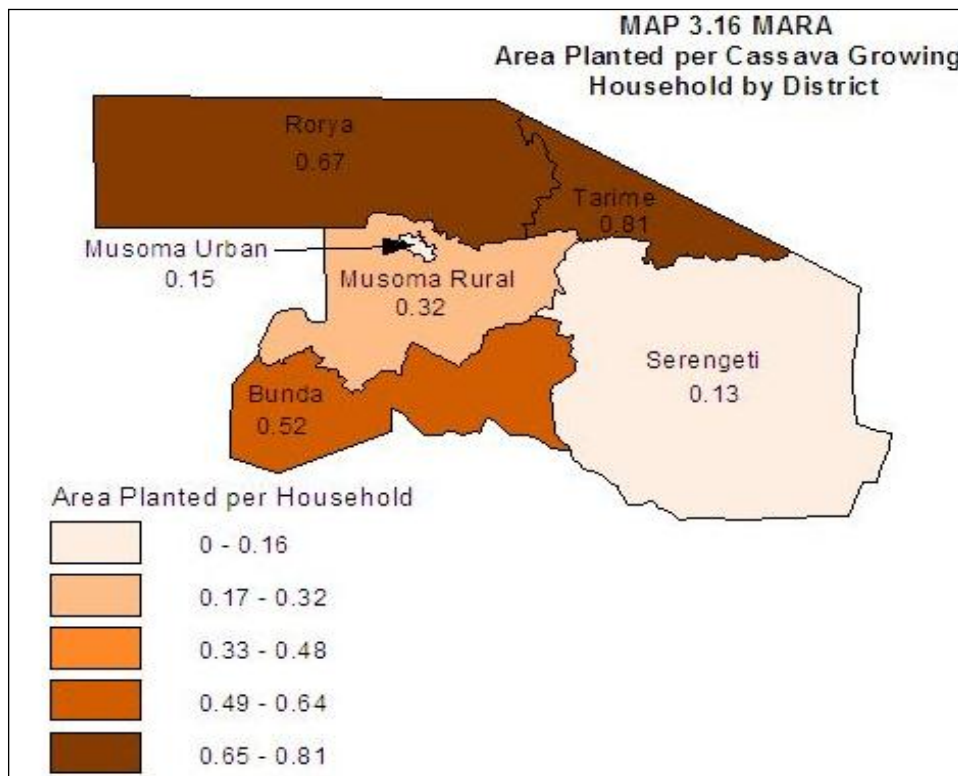
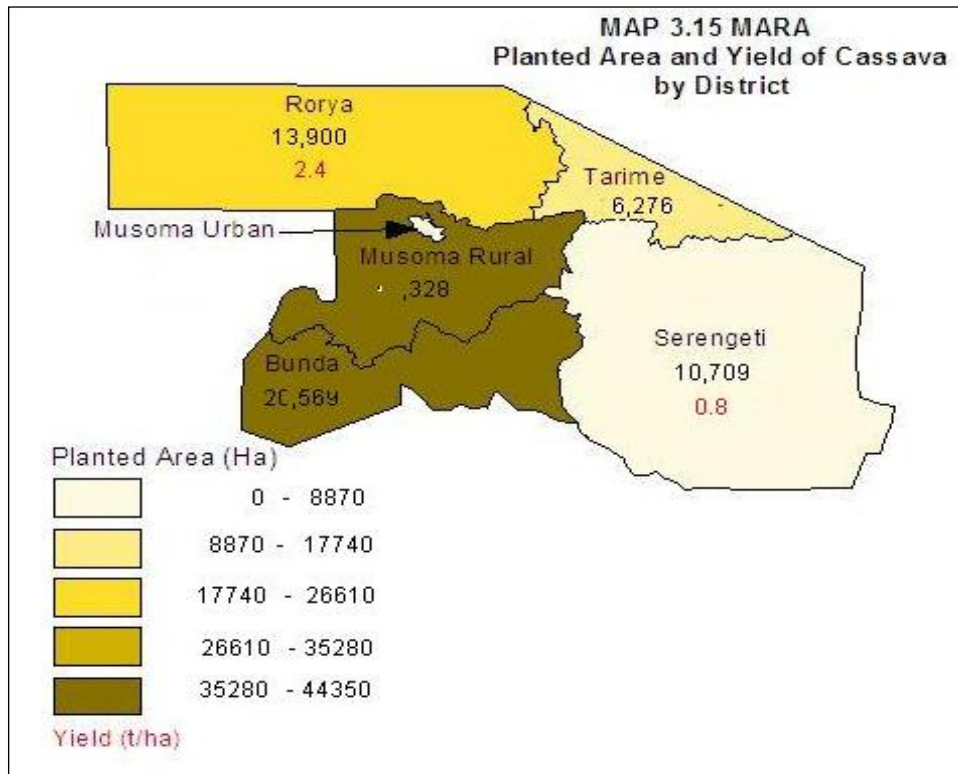
The number of households growing cassava in Mara region was 128,383. This represents 83.8 percent of the total roots and tubers crop growing households in the region. The total production of cassava during the census year was 177,408 tonnes from a planted area of 96,281 hectares resulting in a yield of 1.8 t/ha. (Table 3.6). Previous censuses and surveys indicate that the area planted with cassava decreased from over the period of five years from 115,739 hectares in 2002/03 to 96,281 hectares in 2007/08.

Musoma Rural district had the largest planted area of cassava (44,328 ha, 46% of the cassava planted area in the region), followed by Bunda (20,589 ha, 21%), Rorya (13,900 ha, 14%), Serengeti (10,709 ha, 11%), Tarime (6,275ha, 7%), and Musoma Urban (480 ha, 0.5%) (Map 3.15). However, the percentage of the total land planted with cassava for Musoma Urban is comparably high and is considered as unrepresentative due to the small number of observations in the district. The second highest proportion of land planted with cassava, was Musoma Rural (50%), followed by Rorya (26.5%), Bunda (24.5%), Serengeti (12%) and Tarime (8.5%) (Chart 3.25).



The average cassava planted area per cassava growing household was 0.75 ha. However, there was variations among districts. The largest planted area per cassava growing household was found in Bunda (0.85 ha/hh), followed by Musoma Rural (0.84 ha/hh), Rorya (0.68 ha/hh), Serengeti (0.65 ha/hh), Musoma Urban (0.60 ha/hh) and Tarime (0.47 ha/hh). (Chart 3.26 and Map 3.16).

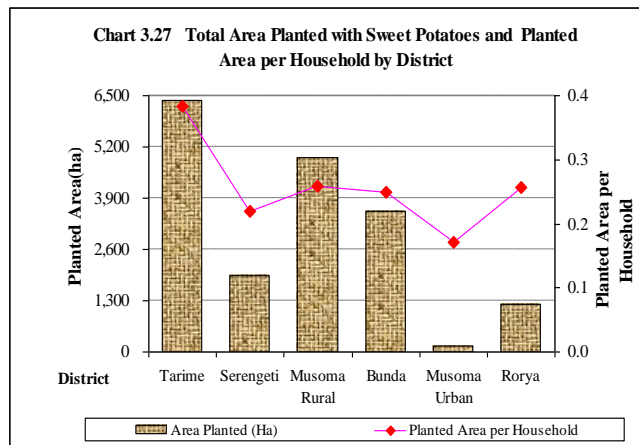




Sweet Potatoes

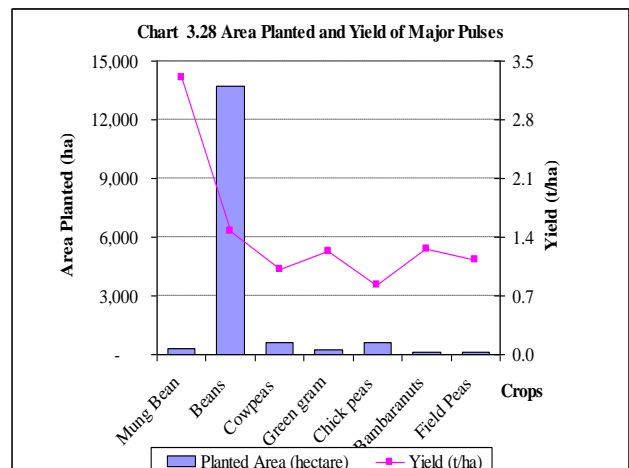
The number of households growing sweet potatoes in Mara region during the long and short rainy seasons was 64,200 (33 percent of the total roots and tubers growing households in the region). The total production of sweet potatoes during the census year was 44,578 tonnes from a planted area of 18,127 hectares resulting into a yield of 2.5 t/ha. The district with the largest planted area with sweet potatoes was Tarime (6,374 ha, 35% of the total area planted with sweet potatoes), followed by Musoma Rural (4,915 ha, 27%), Bunda (3,556 ha, 20%), Serengeti (1,928 ha, 11%) and Rorya (1,215 ha, 7%). Musoma Urban had the smallest planted area 139 hectares accounting for only 0.8 percent.

However, the largest planted area per sweet potato growing household during the long rainy season was found in Tarime (0.38 ha/hh), followed by Musoma Rural and Rorya with 0.26 ha/hh each, Bunda (0.25 ha/hh), Serengeti, (0.22 ha), and Musoma Urban (0.17ha) (Chart 3.27).



3.3.3.3 Pulse Crops Production

The total area planted with pulses was 15,722 hectares out of which 13,715 ha (87 percent of the total area planted with pulses) were planted with beans, followed by chick peas (625 ha), and cowpeas (584 ha) each with 4 percent, mung beans (328 ha, 2%) Green gram (227ha), Bambara nuts (145 ha) and field peas (98ha) each accounted for 1 percent (Chart 3.28)



The area planted with pulses in the short rainy season was 9,542 ha which represented 61 percent of the total area planted with pulses during the year 2007/08. Beans were the dominant pulse crop grown during the short rainy season with 8,511 ha (89 % of the total area planted with pulses in that particular season), followed by cowpeas (483 ha, 5%), Mung beans (244 ha, 3%), field peas (98 ha,

1.1%), chick peas (96 ha, 1.0%), and bambaranuts (71 ha, 0.8%). Beans were also the dominant pulse crop grown during the long rainy season in Mara region (Table 3.7).

Table 3.7 Area Planted (ha) and Quantity Harvested with Pulses during Short Rainy Seasons

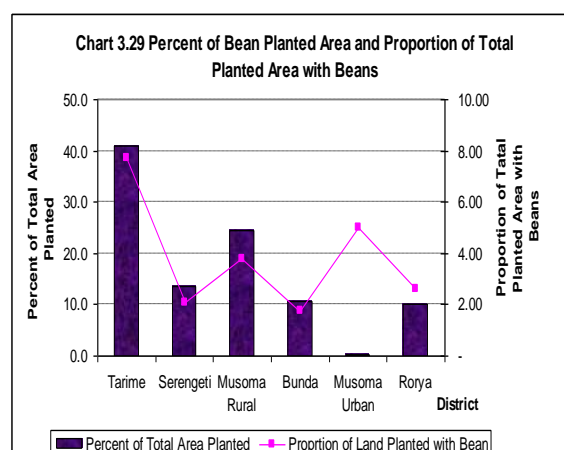
Crop	Number of Households	Actual Planted Area (ha)	Percentage of Total Area Planted with Pulses	Quantity Harvested (tons)	Yield (tons/ha)
Mung Bean	506	244	74	1,059	4.3
Beans	31,529	8,511	62	11,433	1.3
Cowpeas	1,572	483	83	440	0.9
Green gram	189	38	17	13	0.3
Chick peas	182	96	15	21	0.2
Bambaranuts	415	71	49	88	1.2
Field Peas	226	98	100	111	1.1
Total	34,617	9,542	61	13,165	1.4

The total production of pulses was 13,165 tonnes during the short rainy season. Beans were the most cultivated crop producing 11,433 tonnes which accounted for 87 percent of the total pulse production. This was followed by Mung bean (1059 t, 8%), cow peas (440 t, 3.3%), field peas (111 t, 0.8%), bambara nuts (88 t, 0.7%), chick peas (21 t, 0.2%), and green gram (13 t, 0.1%).

The yield for Mung bean (4.3t/ha) is very high followed by beans (1.3 t/ha), bambara nuts (1.2 t/ha), field peas (1.1t/ha). The yields of the rest of the pulse crops in tonnes per hectare were cow peas (0.9 t/ha), green gram (0.3 t/ha), and chick peas (0.2 t/ha) (Table 3.7)

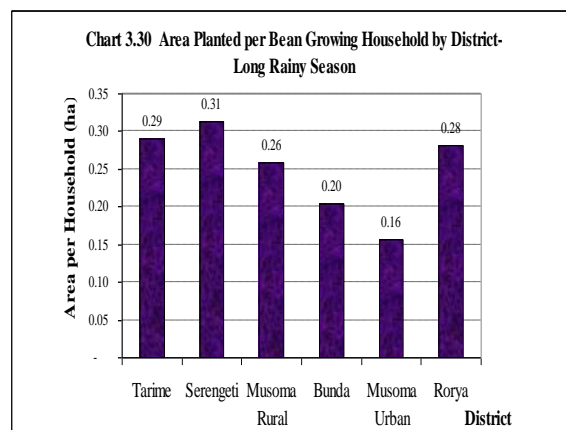
Beans

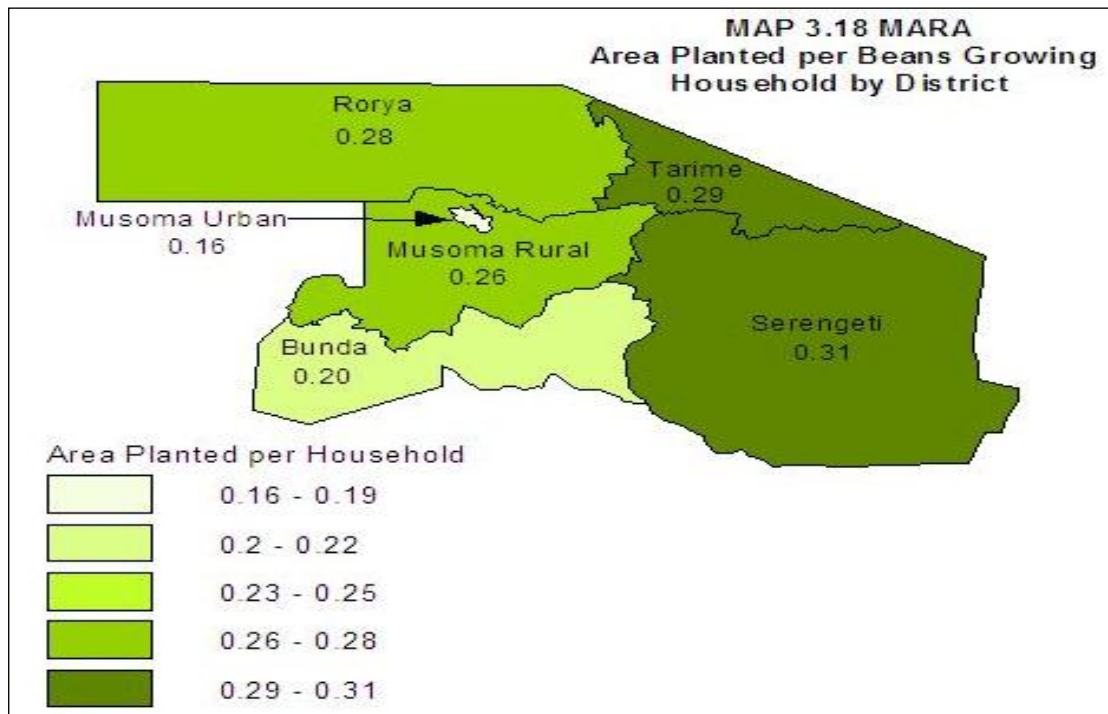
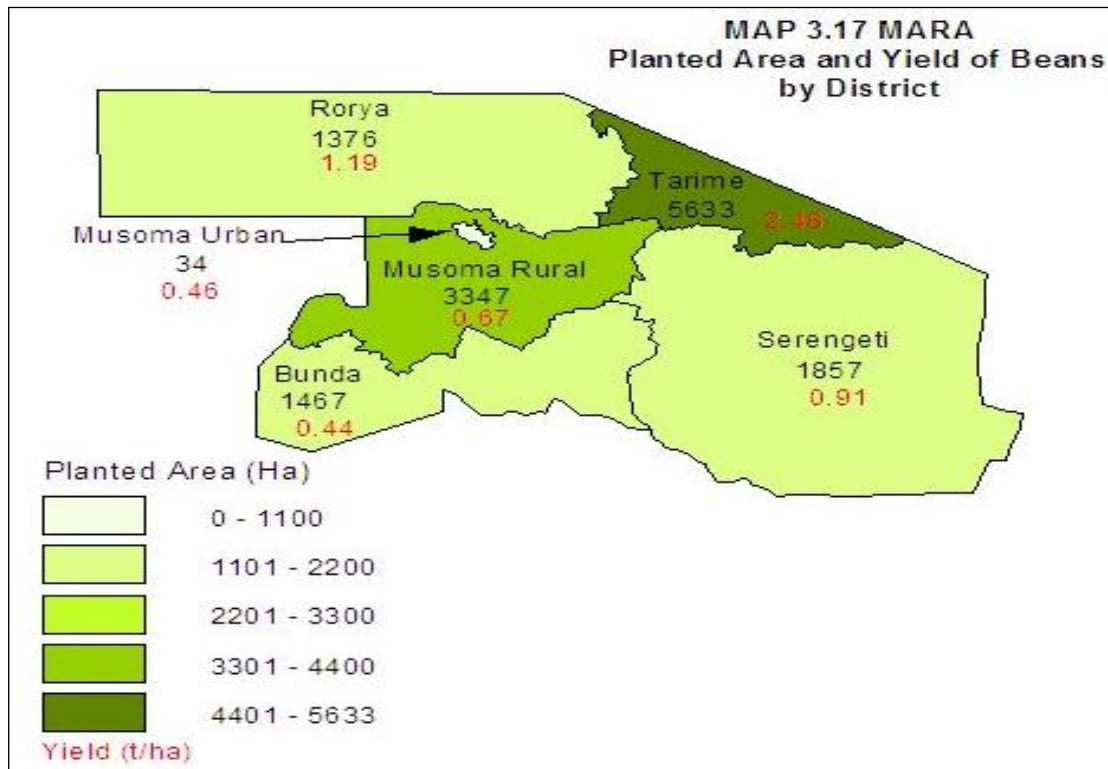
Beans dominated the production of pulse crops in the region. The number of households growing beans in Mara region during the long rainy season was 50,612. The total production of beans in the region was 20,160 tonnes from a planted area of 13,715 hectares resulting in a yield of 1.5 t/ha. The area planted with beans increased slightly over the 5 years period from 11,726 hectares in 2003 to 13,715 hectares in 2008. The largest planted area with beans in the region was in Tarime (5,633 ha, 41.1%), followed by Musoma Rural district (3,347 ha, 24.4%), Serengeti (1,857 ha,



13.5%), Bunda (1,467 ha, 10.7%), Rorya (1,376 ha, 10%), and Musoma Urban (34 ha, 0.3%) (Chart 3.29 and Map 3.17).

The average area planted per household in the region during the long rainy season was 0.3 hectares per household. However, there was great variations in the area planted with beans per household among the districts ranging from 0.16 ha in Musoma Urban to 0.3 in Serengeti district. The district with the largest area planted with beans per household was Serengeti (0.31 ha), followed by Tarime (0.29 ha/hh), Rorya (0.28 ha/hh), Musoma Rural (0.26 ha/hh), Bunda (0.2 ha/hh), and Musoma Urban (0.16 ha/hh) (Chart 3.30 and Map 3.18).

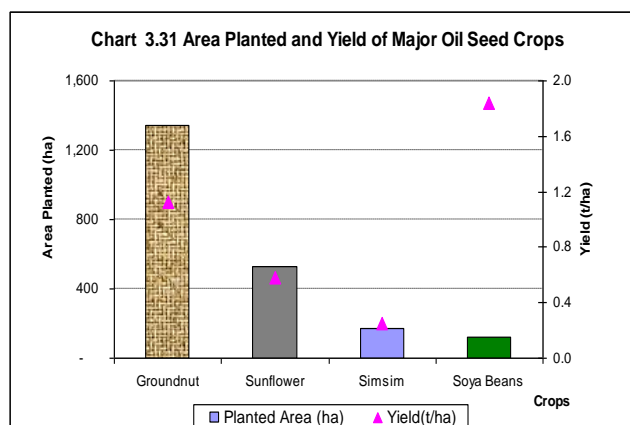




3.3.3.4 Oil Seed Production

The total production of oilseed crops was 2,080 tonnes from an area of 2,163 hectares. The total planted area with oilseeds in the long rainy season was 741 ha representing 34 percent of the total area planted with oil seeds. Groundnuts were the most important oilseed crop with 1,343 ha (62.1 % of the total area planted with oil seeds in both seasons), followed by sunflower (526 ha, 24.3%).

simsim (175 ha, 8.1%) and soya beans (119 ha, 5.56%). However, despite having the smallest planted area, soya beans recorded the highest yield of 1.8 tonnes per hectare, and that of groundnuts was 1.1 tonnes per hectare. The yield of the remaining crops was 0.6 and 0.2 tonnes per hectare for sunflower and simsim respectively (Chart 3.31).



The production of groundnut was 1,511 tonnes accounting for 72.7 percent of the total production of oil seeds, followed by sunflower (306 tonnes, 14.7%). Soya beans (220 tonnes, 10.6%), and simsim (43 ha, 2.1%) (Table 3.8).

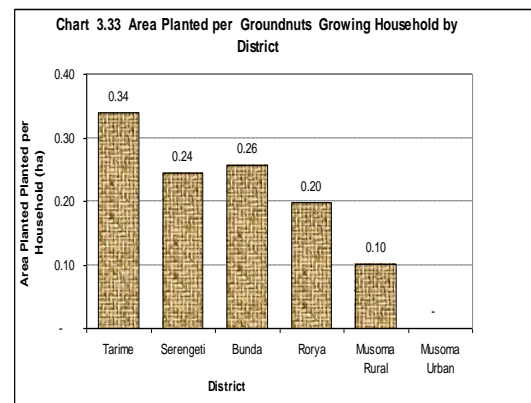
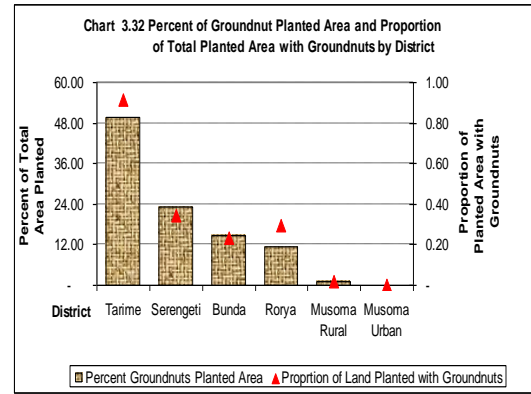
Table 3.8 Area, Production and Yield of Major Oil Seeds & Oil Nuts in Short and Long Rainy Seasons

Crop	Number of Household	Planted Area (hectare)	Percentage of Planted Area	Quantity Harvested (tons)	Percentage of Quantity Harvested	Yield
Sunflower	511	526	24.3	306	14.7	0.6
Sim sim	508	175	8.1	43	2.1	0.2
Groundnut	4930	1,343	62.1	1,511	72.7	1.1
Soya Beans	505	119	5.5	220	10.6	1.8
	6454	2,163	100	2,080	100	1.0

Groundnuts

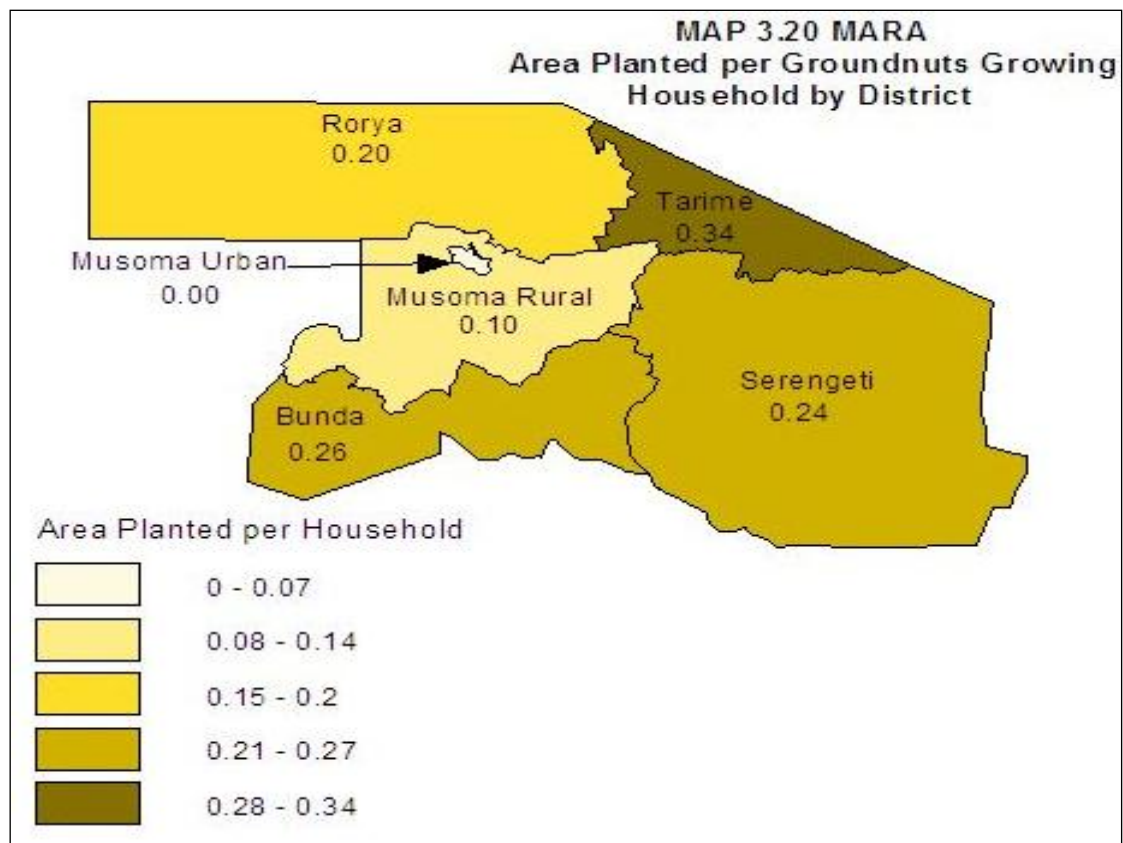
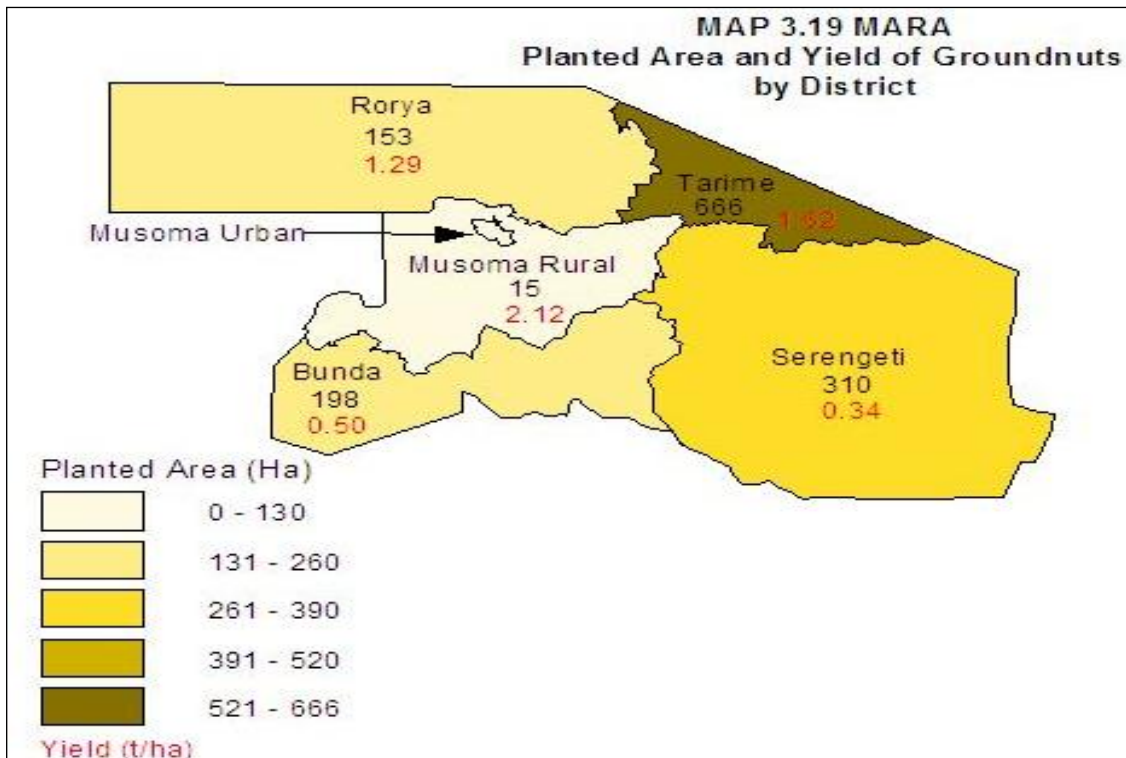
The number of households growing groundnuts in Mara region during the short and long rainy seasons was 4,930. The total production of groundnuts in the region for the two seasons was 1,511 tonnes from a planted area of 1,343 hectares resulting in a yield of 1.1 t/ha. The area planted with groundnut from 2003 to 2008 in Mara region has increased slightly from 1,337 in 2003 to 1,343 in 2008.

The highest percentage of the area planted with groundnuts was located in Tarime district (666 ha, 49.6%) followed by Serengeti (310 ha, 23.1%), Bunda (198 ha, 14.7.0%), Rorya (153 ha, 11.4%), and Musoma Rural (15 ha, 1.1%). Groundnut production was not reported in Musoma Urban . The district with the highest proportion of land for groundnuts was Tarime, followed by Serengeti, Rorya, Bunda and Musoma Rural (Chart 3.32 and Map 3.19). The area planted per groundnut growing household was largest in Tarime (0.34 ha/hh) and the lowest in Musoma Rural district (0.10 ha/hh). The planted area with groundnuts per household in other districts range from 0.26 ha in Bunda district to 0.2 ha in Rorya district (Chart 3.33 and Map 3.20).

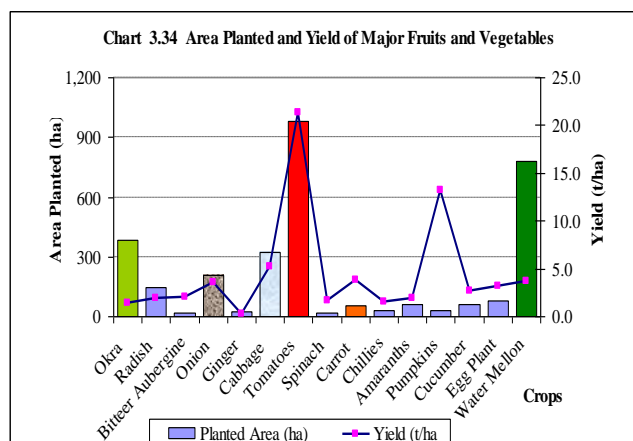


3.3.3.5 Fruits and Vegetables

The collection of fruit and vegetable production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of small holders who grew these crops as cash crops and not merely for household consumption. Most fruit production is from permanent crops. Both short and long rainy seasons are almost equally important in fruit and vegetable production. 61 percent of the total planted area with fruits and vegetables was found in the shorty rainy season and the remaining percent accounted for the long rainy season.



The total production of fruits and vegetables was 28,247 tonnes. The most cultivated fruit and vegetable crop was tomato with a production of 20,914 tonnes (74% of the total fruits and vegetables produced), followed by water melon (2,835 t, 10 %), cabbage (1,680 3t, 5.9%), onions (743 t, 2.6%) and okra (523 t, 2%). The production of other fruit and vegetable crops was relatively small amounting to less than 2



percent (Table 3.9). Tomatoes had the highest yield 21.3 t/ha, followed by pumpkins with a yield of 13.2 percent. Other high yielding crops among fruits and vegetables include cabbage (5.2t/ha), carrot (3.8 t/ha), onions and water melon at 3.6t/ha) each, egg plant (3.2t/ha), Cucumber (2/6t/ha), and Bitter Aubergine (2t/ha). Other crops among fruits and vegetables had very low yields amounting to less than 2 tonnes per hectare (Chart 3.34).

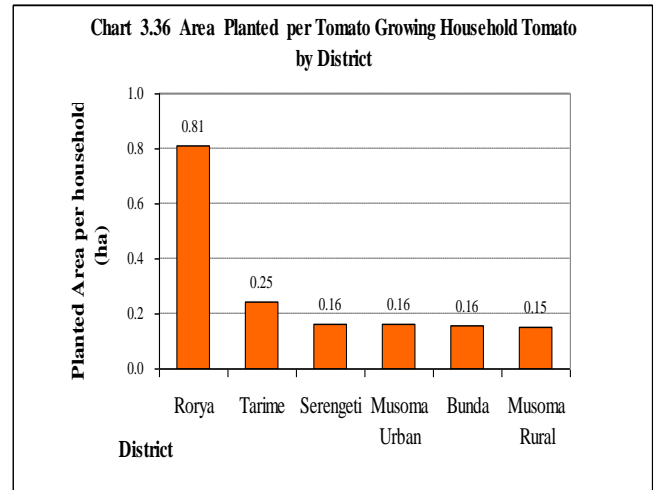
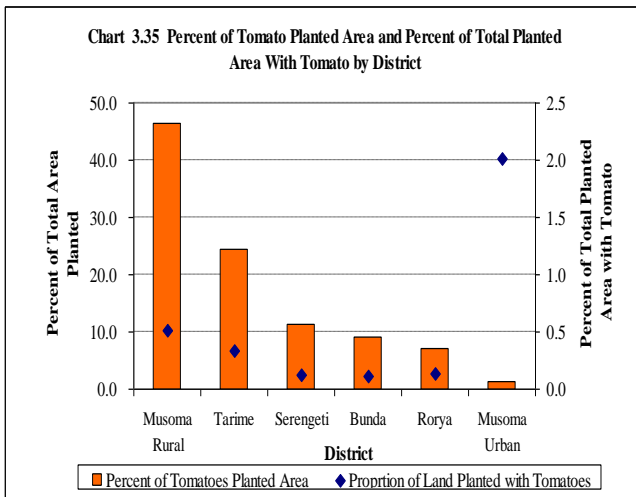
Table 3.9 Area, Production and Yield of Fruits and Vegetables by Season

Crop	SHORT RAINY			LONG RAINY			Total		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Okra	216	362	1.7	165	161	1.0	381	523	1.4
Radish	28	140	4.9	118	131	1.1	146	271	1.9
Bitter Aubergine	20	39	2.0	.	.	.	20	39	2.0
Onion	112	440	3.9	94	303	3.2	206	743	3.6
Ginger	24	5	0.2	.	.	.	24	5	0.2
Cabbage	274	1,339	4.9	49	341	6.9	323	1,680	5.2
Tomatoes	585	11,332	19.4	397	9,582	24.1	983	20,914	21.3
Spinach	2	12	6.9	14	14	1.0	16	26	1.6
Carrot	28	92	3.3	28	123	4.3	57	216	3.8
Chillies	30	46	1.5	.	.	.	30	46	1.5
Amaranths	58	112	1.9	.	.	.	58	112	1.9
Pumpkins	.	.	.	32	427	13.2	32	427	13.2
Cucumber	55	134	2.4	9	34	4.0	63	168	2.6
Egg Plant	66	206	3.1	10	39	4.0	76	244	3.2
Water Mellon	452	1,430	3.2	329	1,405	4.3	782	2,835	3.6
Total	1,950	15,688		1,247	12,559		3,197	28,247	

Tomatoes

The number of households growing tomatoes in the region was 5,418 which represent 42.9 percent of the total fruit and vegetables growing households in the region. Musoma Rural district had the largest planted area of tomatoes (46.5% of the total area planted with tomatoes in the region), followed by Tarime (24.5%), Serengeti (11.4%), Bunda (8.2%), Rorya district (7.1%) and Musoma

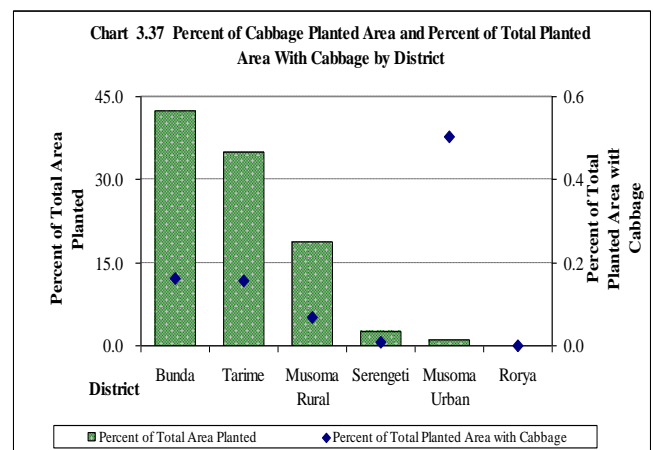
Urban (1.4%). The highest planted area with tomatoes compared with the total planted area with annual crops in the region was found in Musoma Urban district, followed by Musoma Rural. Other districts were Rorya, Serengeti, and Bunda (Map 3.21 and Chart 3.35).



The largest planted area per tomato growing household was in Rorya district (0.8ha/hh), followed by Tarime (0.25 ha), Serengeti, Bunda, Musoma Urban with 0.16 each. Musoma Rural had the smallest planted area per household at 0.15 hectare per household (Chart 3.36 and Map 3.22). The total area planted with tomatoes accounted for 0.3 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.

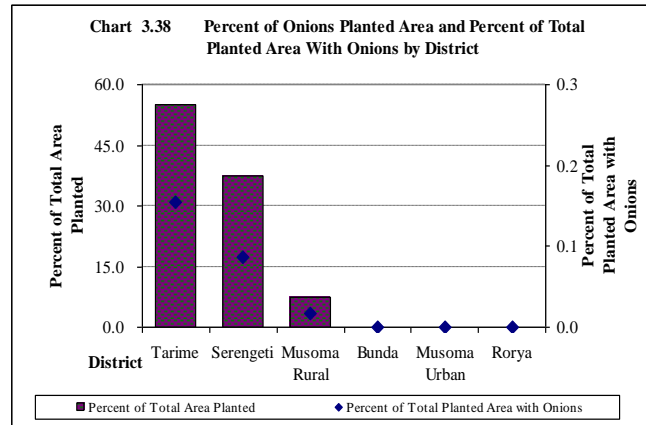
Cabbage

The number of households growing cabbages in the region during the long rainy season was 489 and 1,028 in the short rainy seasons. This represented 0.4 percent of the total crop growing household in the region in the long rainy season and 0.6 in the short rainy season. Bunda district had the largest planted area of cabbage (137 ha, 42.2% of the total area planted with cabbage in the region), followed by Tarime (113ha, 35.5%), Musoma rural (61ha, 18.8%), Serengeti (9 ha, 2.7%) and Musoma Urban (37 ha, 1.06%). Cabbage production was not recorded in Rorya district (Chart 3.37 and Map 3.23 and 3.24). The total area planted with cabbages accounted for 0.08 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.

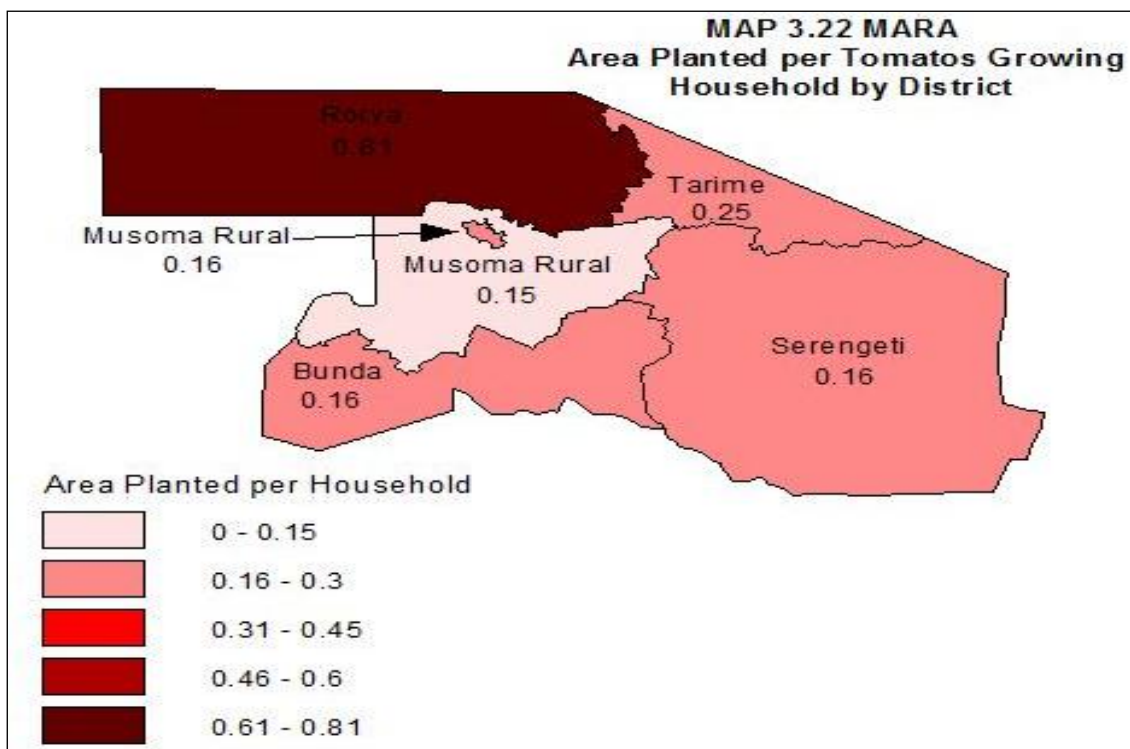
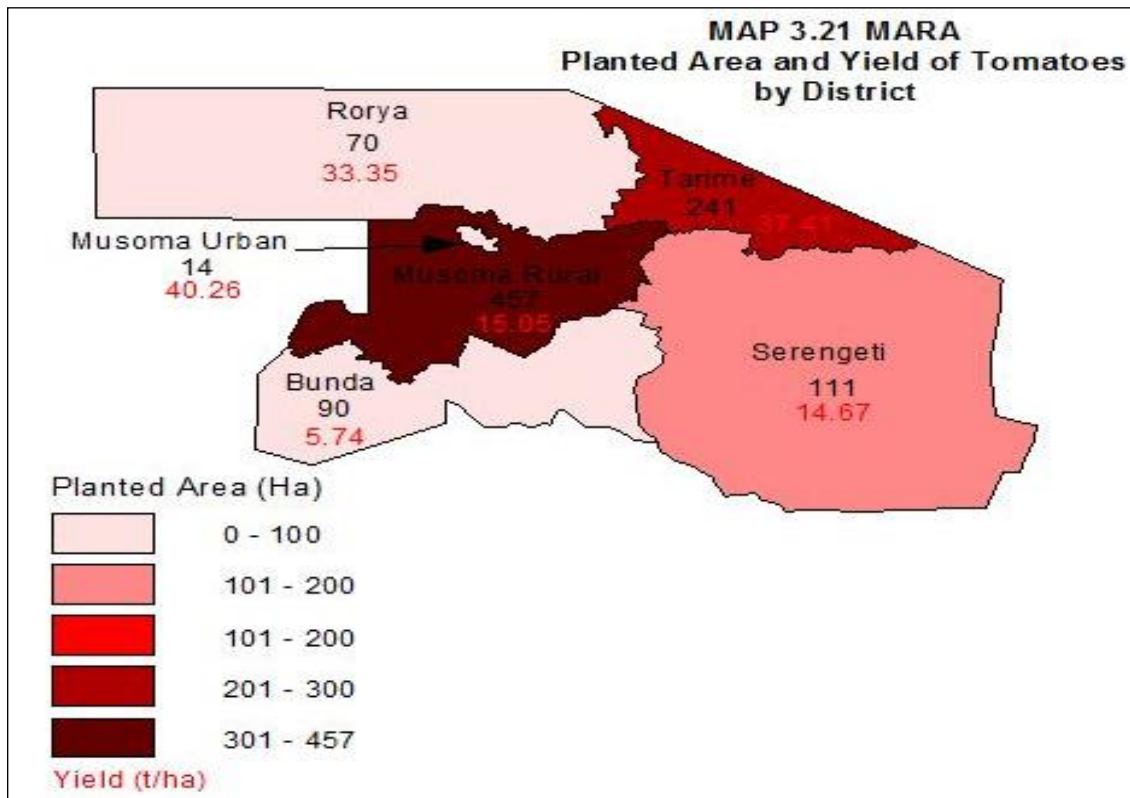


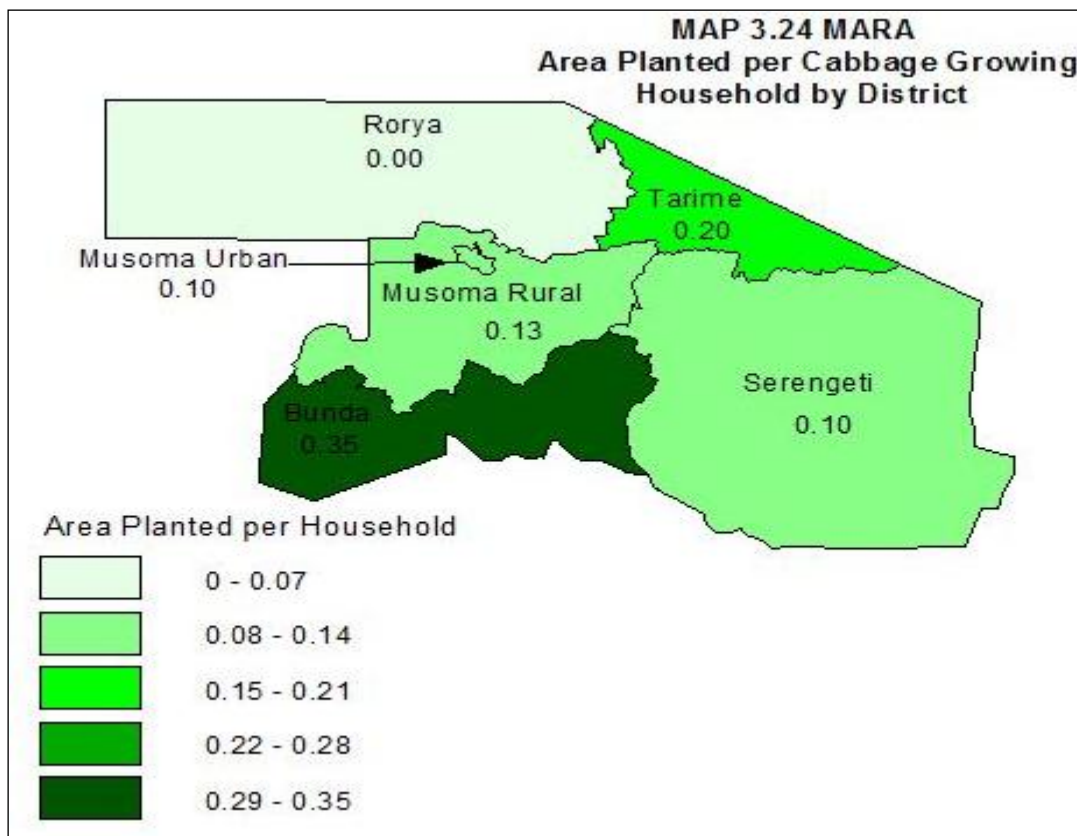
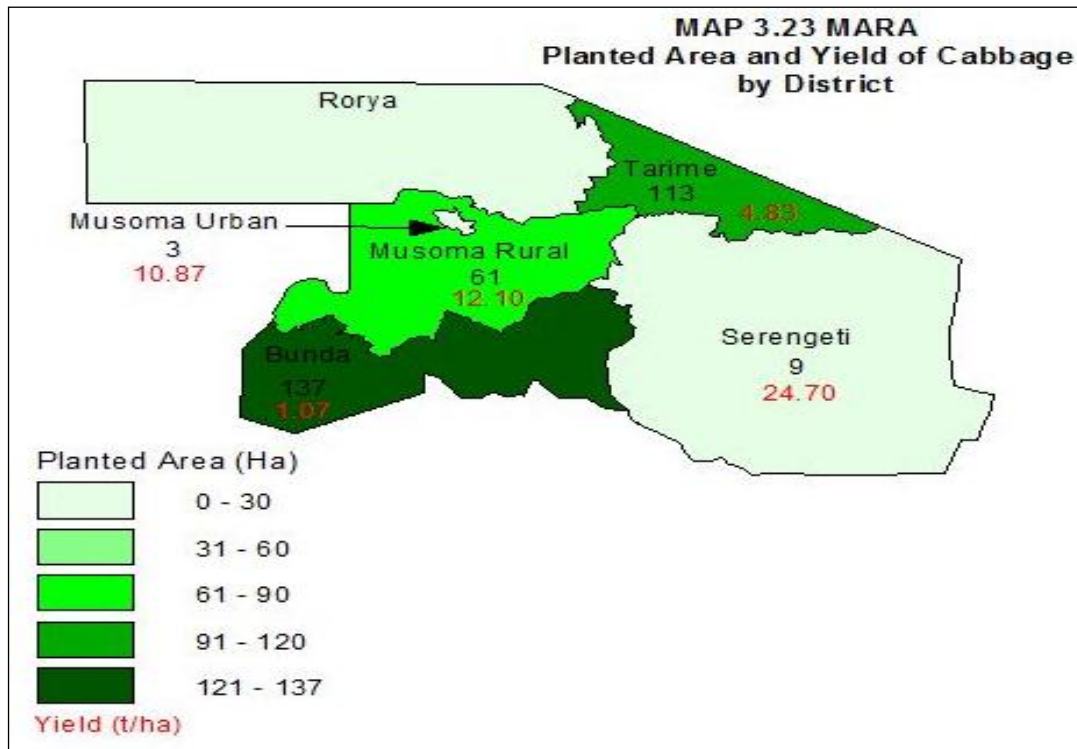
Onions

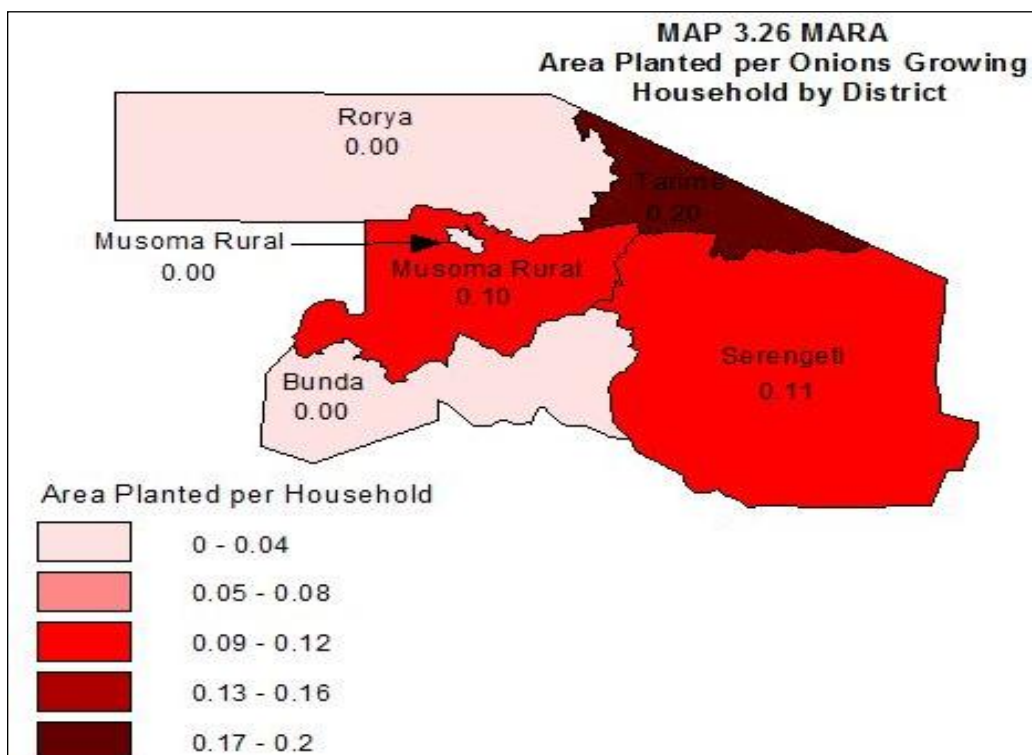
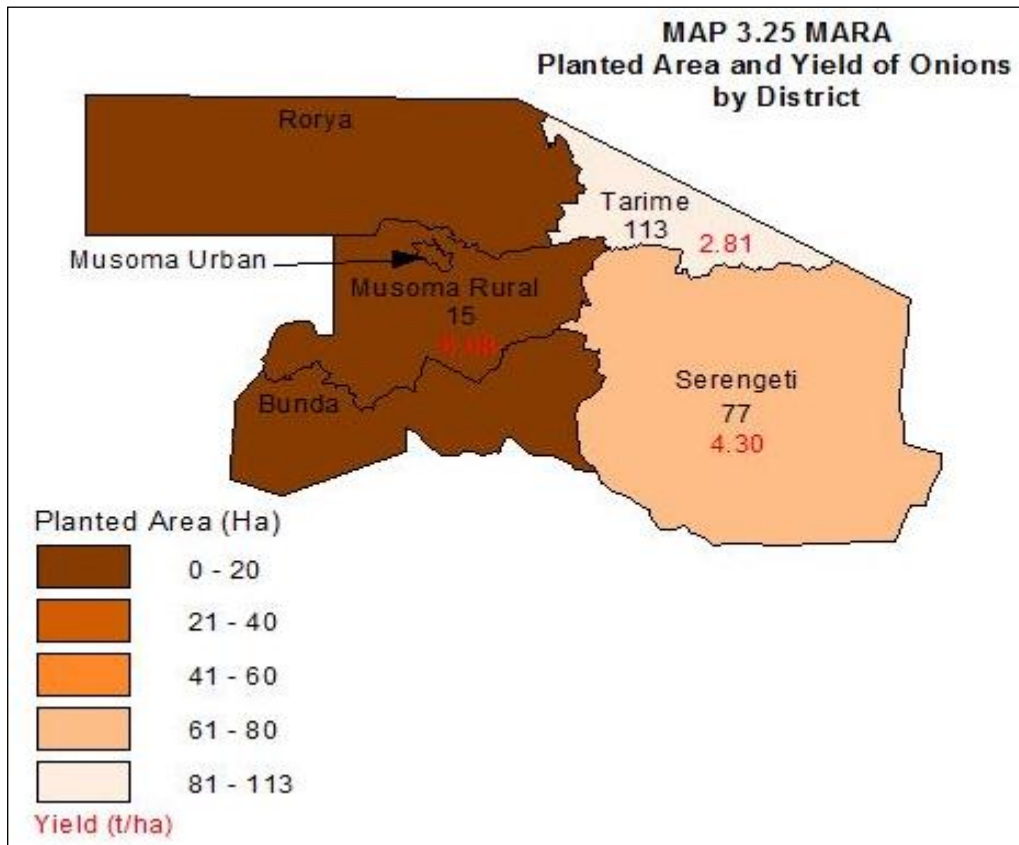
The number of households growing onions in the region during the long and short rainy seasons was 1,388 households. This represented 0.6 percent of the total crop growing households in the region. Tarime district had the largest planted area of onions (113 ha, 55.1% of the total area planted with onions in the region), followed by Serengeti (77 ha, 37.5%), and Musoma Rural (15 ha, 7.4%). Onion production was not recorded in the rest of the districts in the region (Chart 3.38, Map 3.25 and 3.26).



The total area planted with onions accounted for 0.05 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.







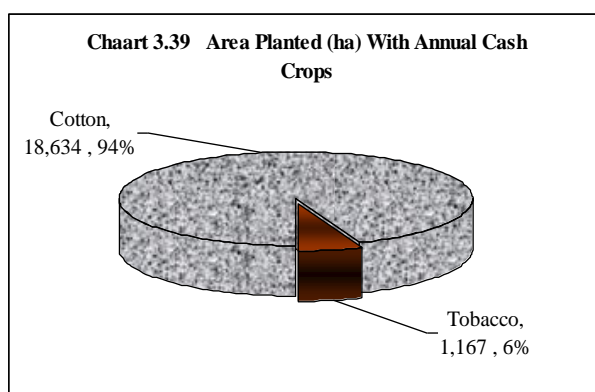
3.3.3.6 Other Annual Crop Production

Most of the other annual crops are cash crops. An area of 19,801 ha was planted with other annual crops which are mainly cotton and tobacco representing 5 percent of the total planted area in the region. The area planted with annual cash crops in the short rainy season was 13,719 ha which represents 8.5 percent of the total area planted with annual crops in short rainy season. The area planted with annual cash crops in long rainy season was 6,081 ha representing 5 percent of the total area planted with annual crops during the long rainy season (Table 3.10).

Table 3.10 Area planted (ha) and Quantity Harvested of Other Annual crops by Season and Crop for the 2007/08 Agriculture year

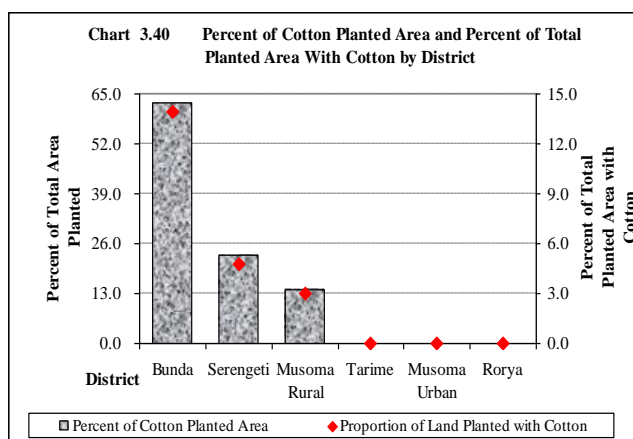
Crop	SHORT RAINY SEASON			LONG RAINY SEASON			TOTAL		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Cotton	12,869	12,655	0.98	5,765	6,601	1.15	18,634	19,257	1.03
Tobacco	851	742	0.87	316	435	1.37	1,167	1,177	1.01
Total	13,719	13,397	1.59	6,081	7,036	1.72	19,801	20,433	1.0

Cotton was grown in a total planted area of 18,634 hectares, accounting to 94 percent of the total area planted with other annual crops in the region. Tobacco was planted in an area of 1,167 hectares accounting to only 6 percent of the total area planted with other annual crops in the region (Chart 3.39).



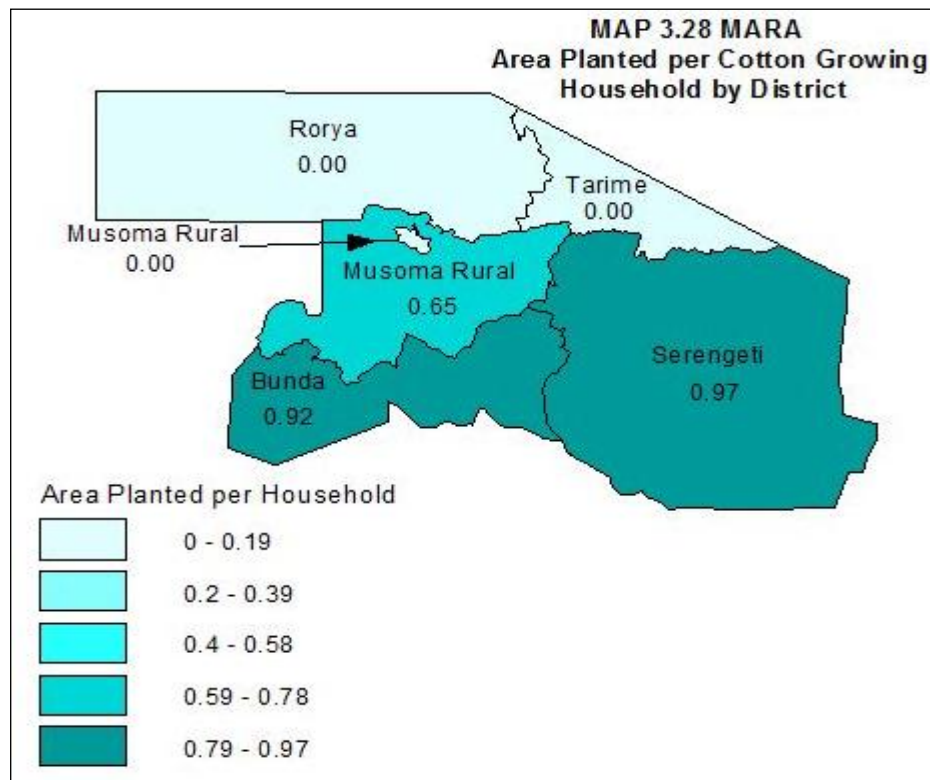
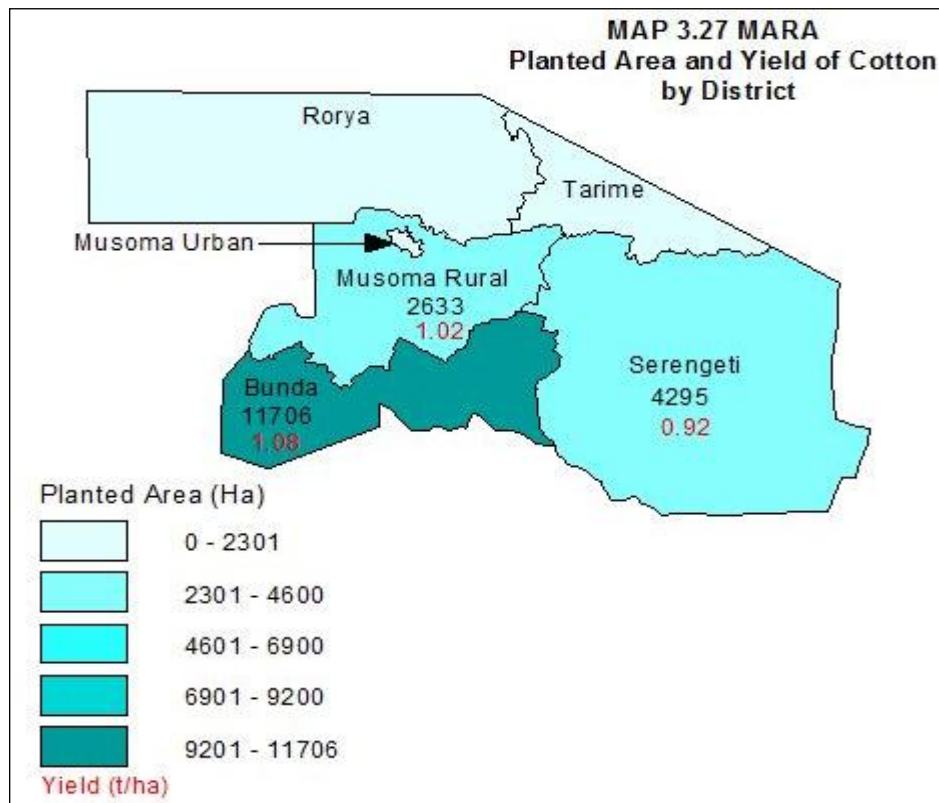
Cotton

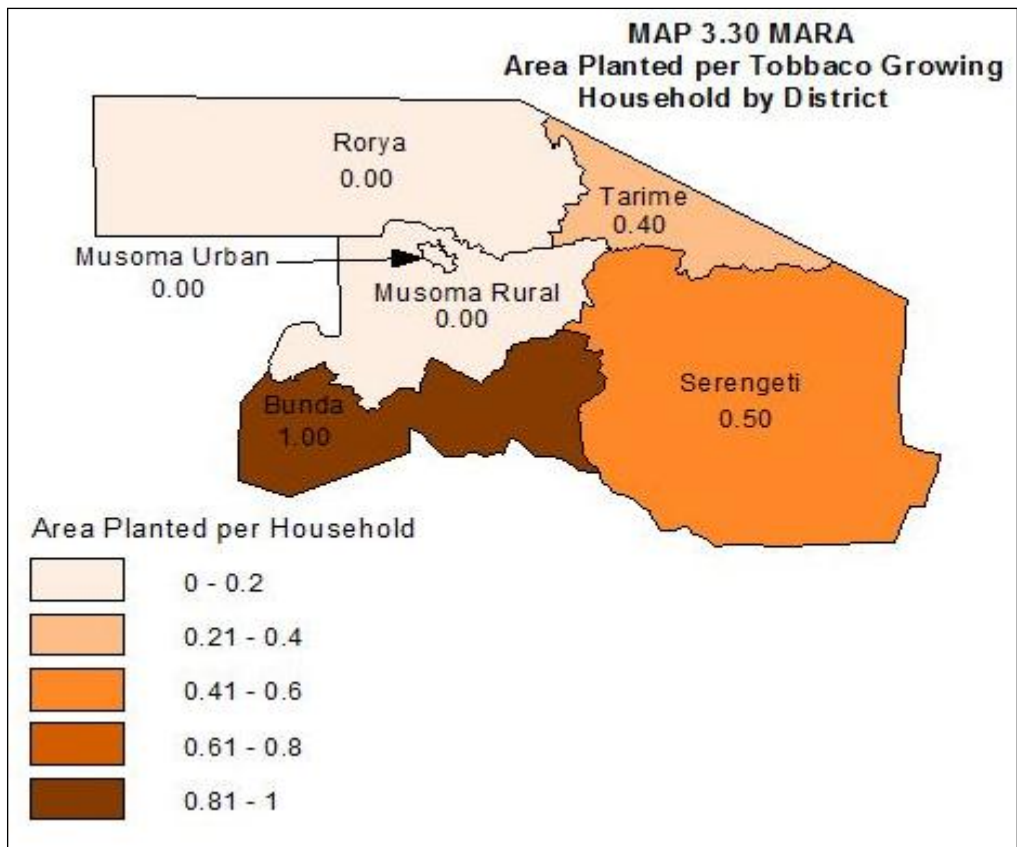
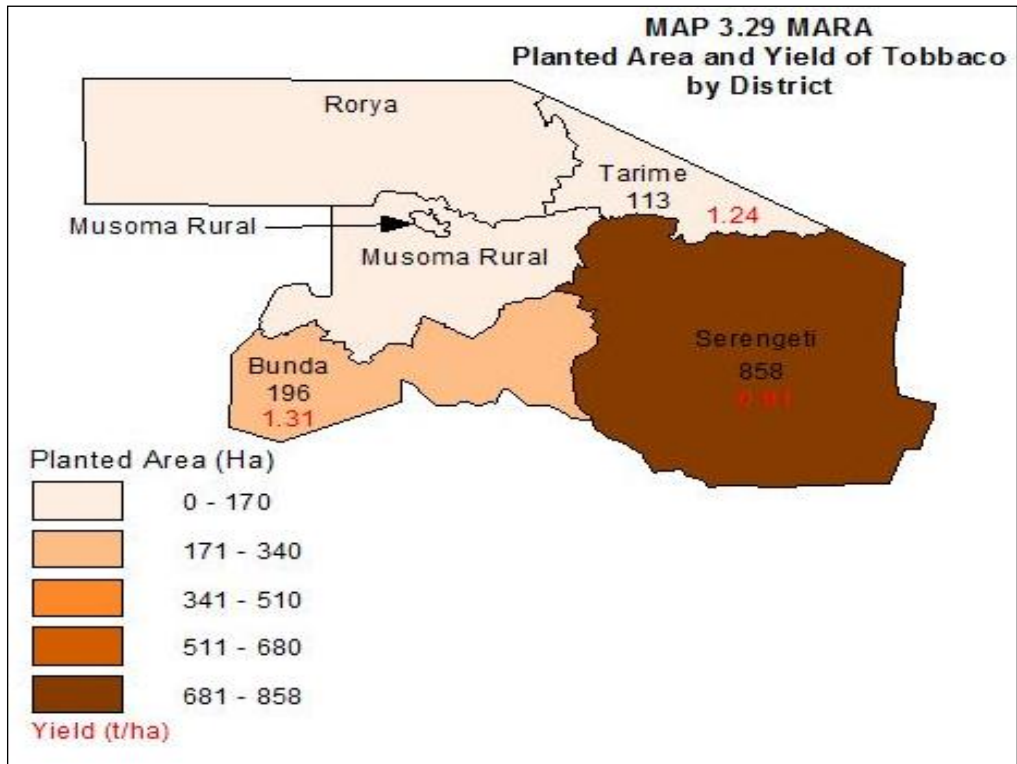
The quantity of cotton produced was 19,257 tonnes. Cotton had a total planted area of 18,634 ha (12,869 ha and 5,765 ha planted during short and long rainy seasons respectively). Cotton production is concentrated in 3 districts with Bunda having the largest planted area (62.8 % of the total area planted with cotton in the region), followed by Serengeti (23.0%), and Musoma Rural (14.1%) (Chart 3.40 Maps 3.27 and 3.28).



Tobacco

Only 1,177 tonnes of tobacco were produced in Mara region from a planted area of 1,167 ha (851 and 316 ha planted during short and long rainy seasons respectively). The crop is grown in Tarime, Serengeti, and Bunda districts (Map 3.29). The district with the largest planted area was Serengeti (858 ha), followed by Bunda (196 ha), and Tarime (113 ha) (Map 3.30).



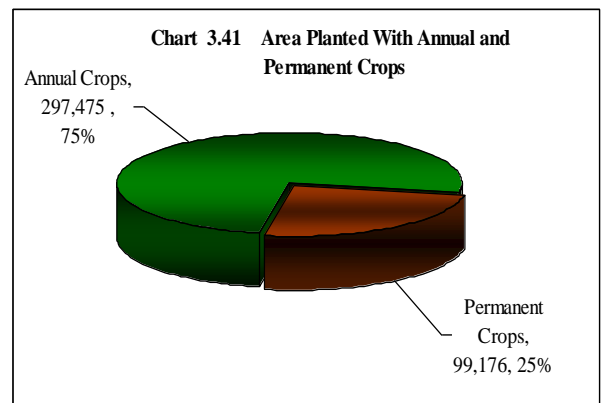


3.4 Permanent Crops

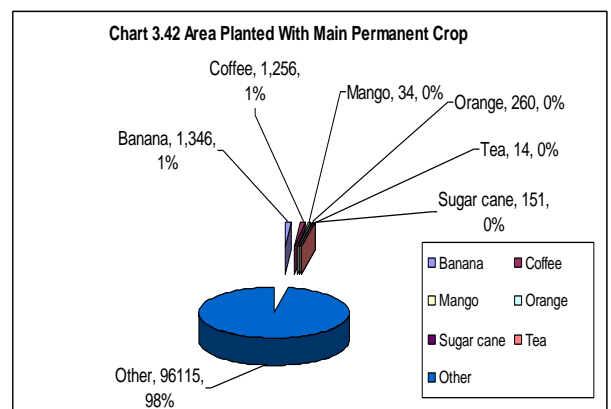
Permanent crops (sometimes referred as perennial crops) are crops that normally take over a year to mature and once mature can be harvest for a number of years. For most crops, it is easy to determine if they are annual or permanent.

However, for crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produce several harvests. In this census, cassava was treated as an annual crop. Conversely, bananas normally take less than a year to mature, survive for more than one year and are thus treated as a permanent crops. In this report the agriculture census results are presented for the most important permanent crops in terms of area planted, production and yield.

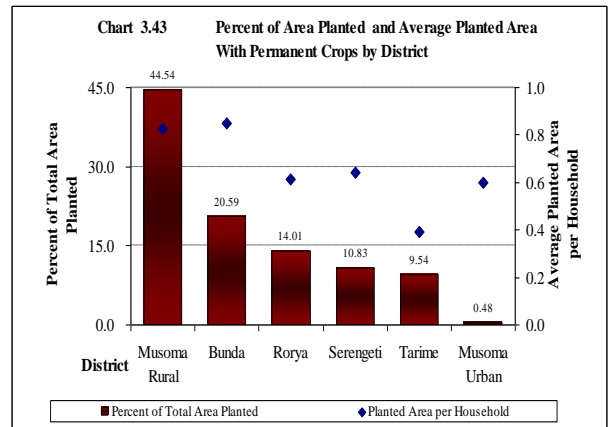
The smallholder planted area of permanent crops was 99,176 hectares (25 % of the total planted area of annual and permanent crops in the region). However, the area planted with annual crops is not the actual physical land area as it includes the area of annual crops planted more than once on the same land, whilst the planted area for permanent crops is the same as physical planted land area. So the percentage area planted with permanent crops would be higher than indicated in Chart 3.41.



The most important permanent crops in Mara region were Coffee and banana which had planted areas of 1,256 and 1,346 respectively accounting for 1.3 percent of the planted area with permanent crops and 1.4 percent respectively , followed by orange (260 ha, 0.3%), sugarcane (151 ha, 0.2%), Mango (34 ha) and Tea (14 ha). The other permanent crops together accounted for 98 percent of the total area planted with permanent crops in Mara region (Chart 3.42).



Musoma Rural had the largest area under smallholder permanent crops (44,173 ha, 44.5% of the total area planted with permanent crops), followed by Bunda (20,424 ha, 20.6%), Rorya (13,892 ha, 14%), Serengeti (10,744 ha, 10.8 Tarime (9,465 ha, 9.5%) and Musoma Urban (478 ha, 0.5%). Bunda district had the largest planted area per permanent crop growing household (0.86 ha/hh), followed by Musoma Rural (0.85 ha/hh), Serengeti (0.66 ha/hh), Rorya (0.64 ha/hh), Musoma Urban (0.6 ha/hh), and Tarime (0.5 ha/hh), (Chart 3.43).

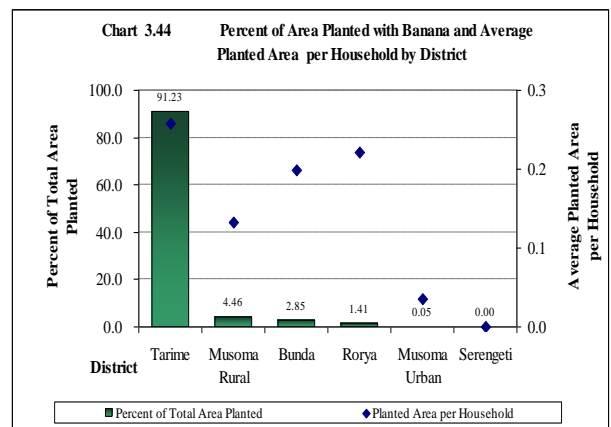


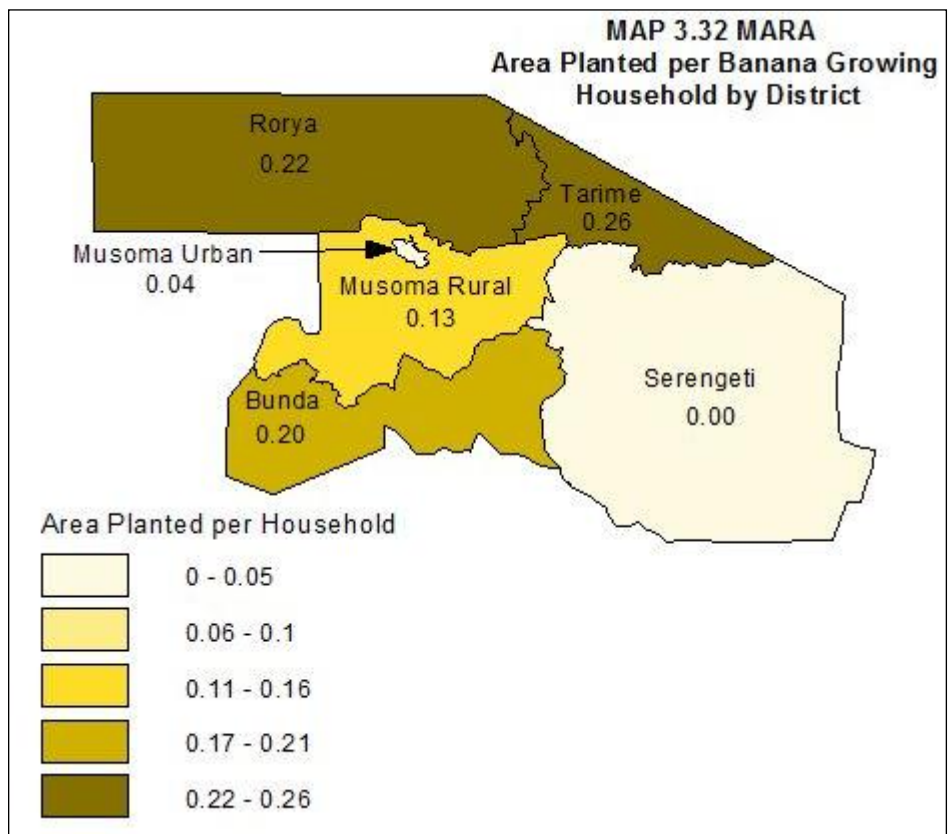
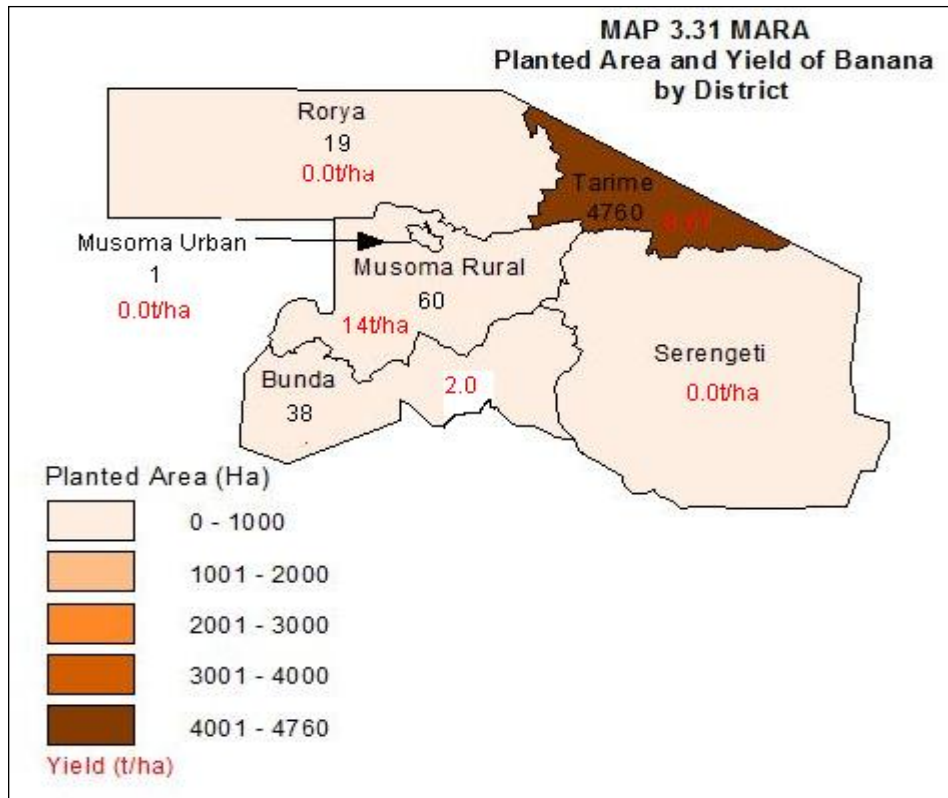
In terms of planted area of permanent crops expressed as a percentage of the total area planted in the region, Musoma Urban had the highest percentage (69.9%), followed by Musoma Rural (49.8%), Rorya (26.6%), Bunda (24.3%). The remaining district had less than 15 percent.

3.4.1 Banana

The total production of banana by smallholders was 11,323 tonnes. Banana was one of the two most important permanent crops grown by smallholders in the region. The crop was grown by 5,508 households (2.4% of the total crop growing households). The average planted area per banana growing household was relatively small (0.24 ha per banana growing household).

Tarime had the largest area of bananas in the region (1,228 ha, 91.2% of the area planted with banana in the region), followed by Musoma Rural (60 ha, 4.5%), Bunda (38 ha, 2.9%), and Rorya (19ha, 1.4%). Musoma Urban had the smallest banana planted area of 1 ha accounting to 0.07 percent of area planted with banana in the region. In Serengeti district banana production was not recorded (Map 3.31). The average area planted with banana per banana growing household was highest in Tarime district (0.26 ha/hh), followed by Rorya (0.22 ha/hh), Bunda (0.20 ha/hh), Musoma Rural (0.13 ha/hh), and Musoma Urban (0.004ha/hh) (Chart 3.44 Map 3.32).

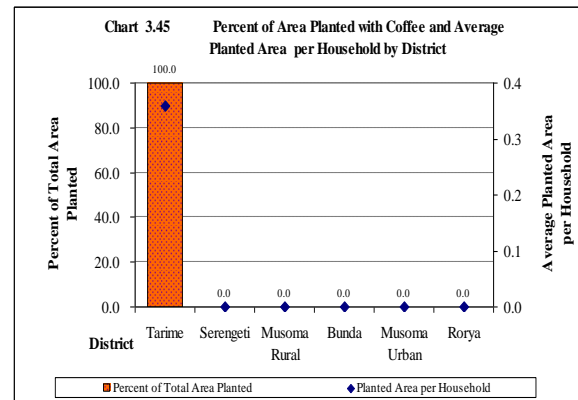




3.4.2 Coffee

The total production of coffee by smallholders was 2,448 tonnes. In terms of area planted, coffee was the second most important permanent crop, grown by smallholders in the region. It was grown by 3,500 households (1.5% of the total crop growing households). The average area planted with coffee per household was relatively small at 0.4 ha per coffee growing household and the average yield obtained by smallholders was 0.5 tonnes from a harvest area of 1,255 hectares.

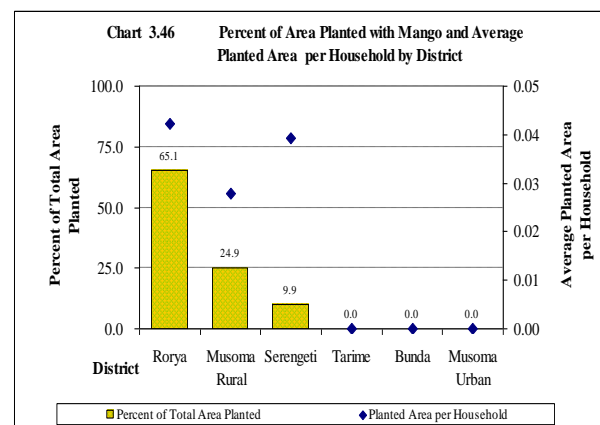
Tarime was the only district producing coffee in the region with a planted area of 1,256 hectares. This constitute 100 percent of coffee planted area in the region. The average area planted with coffee per coffee planting household in Tarime was 0.4. The remaining districts in Mara region did not report any production of coffee (Chart 3.45 and Maps 3.33 and 3.34).



3.4.3 Mango

In terms of area planted, mango was the fourth most important permanent crop grown by smallholders in the region. It was grown by 901 households (0.4% of the total crop growing households). The average area planted with mango per household was very small (0.04 ha per mango growing household).

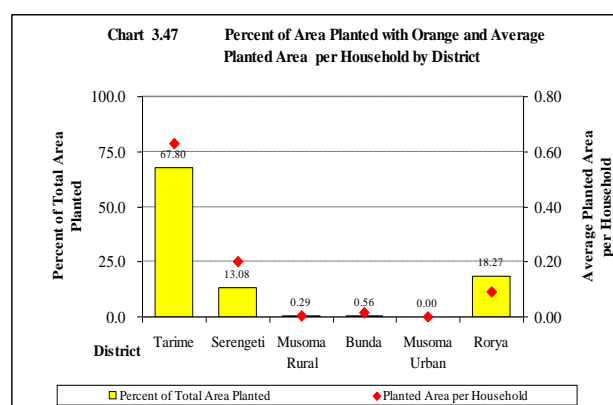
Rorya district had the largest area of mango in the region (22 ha, 65.3%), followed by Musoma Rural (8 ha, 24.9%), and Serengeti (3 ha, 10 %). Mango production was not reported in the remaining districts (Map 3.35). The average area planted per mango growing household was highest in Rorya and Serengeti (0.04ha/hh), followed by Musoma Rural (0.03ha/hh) (Chart 3.46 and Map 3.36).

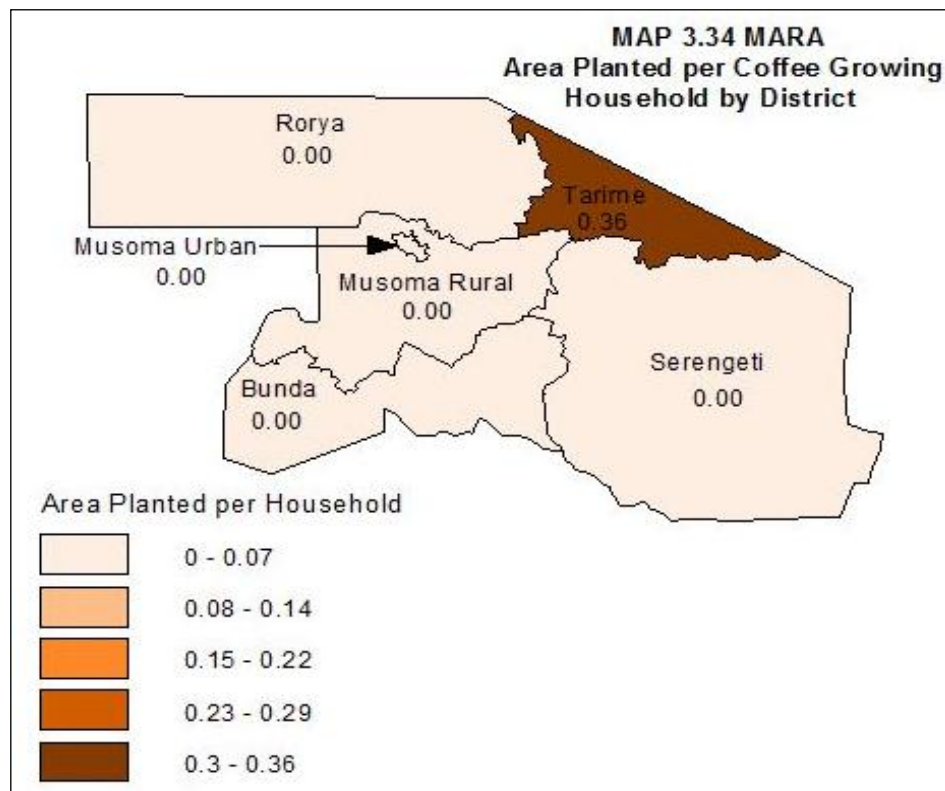
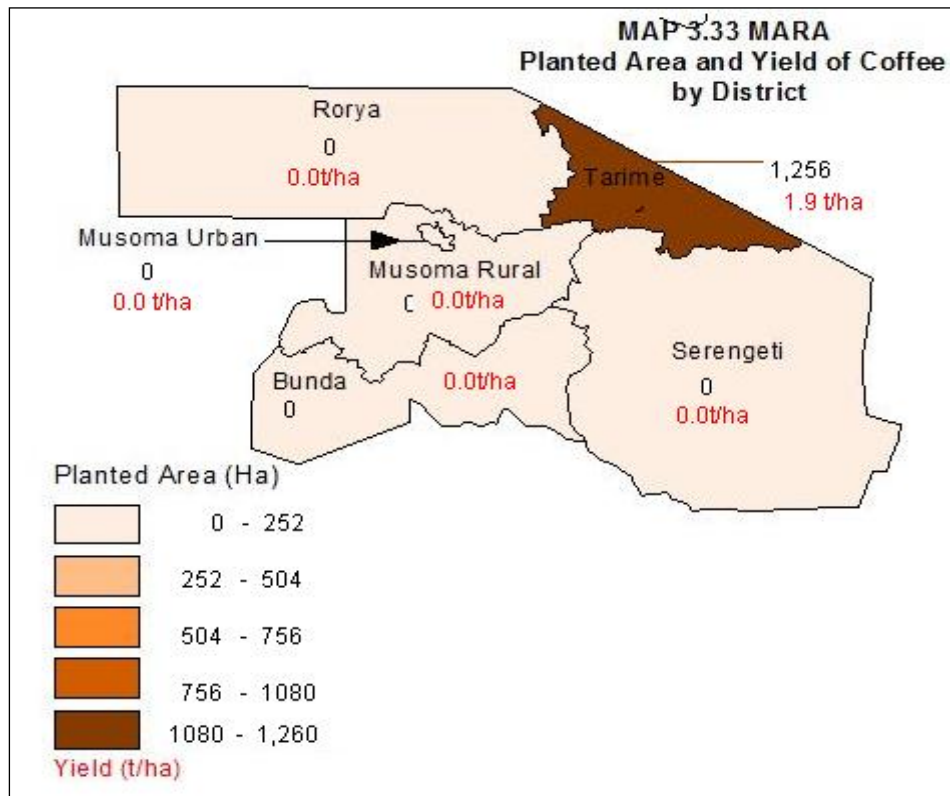


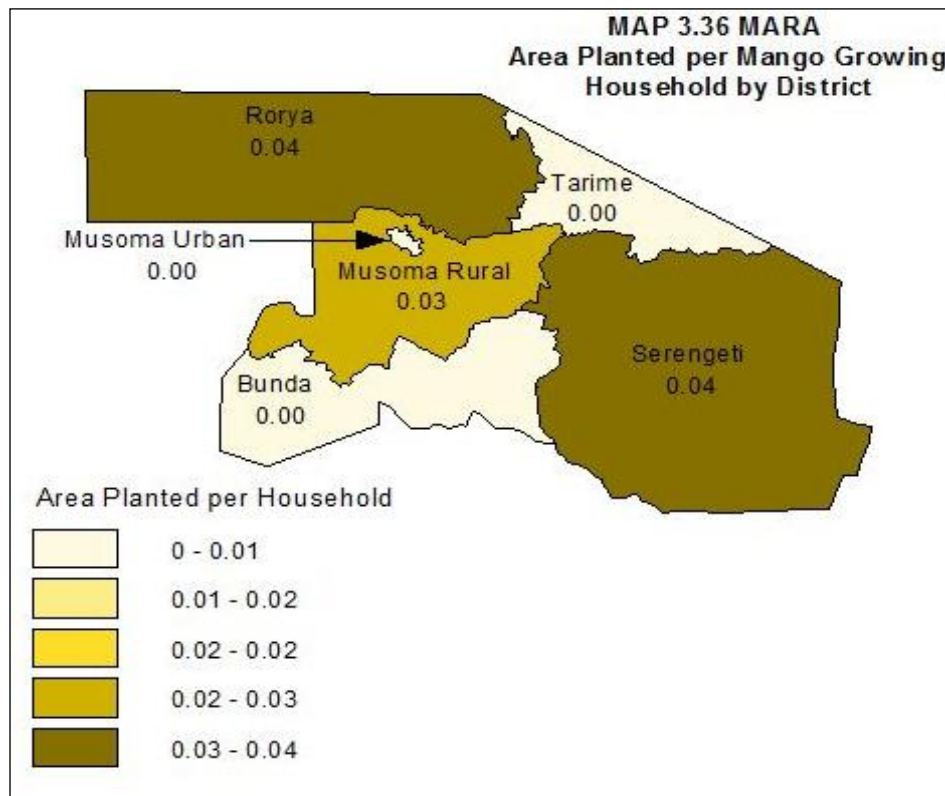
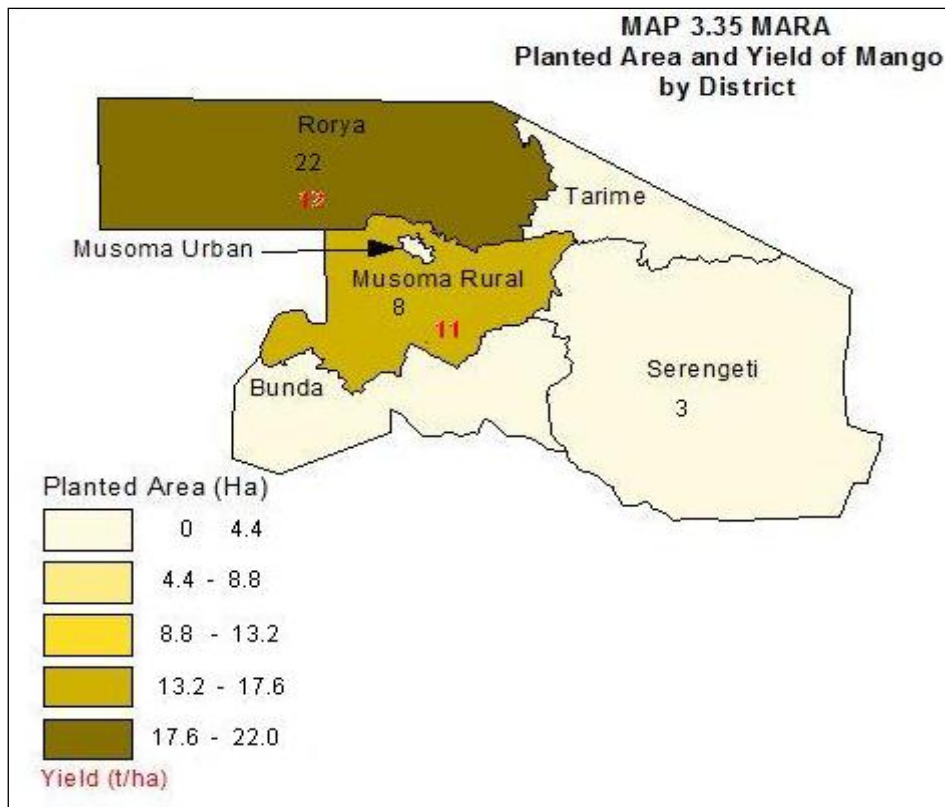
3.4.4 Orange

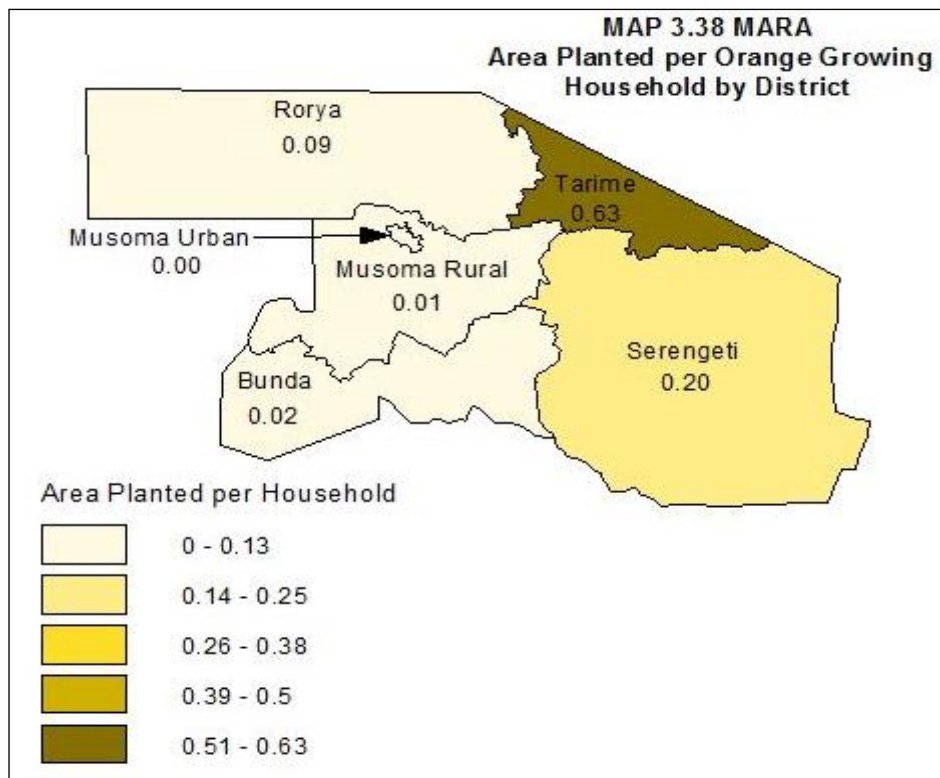
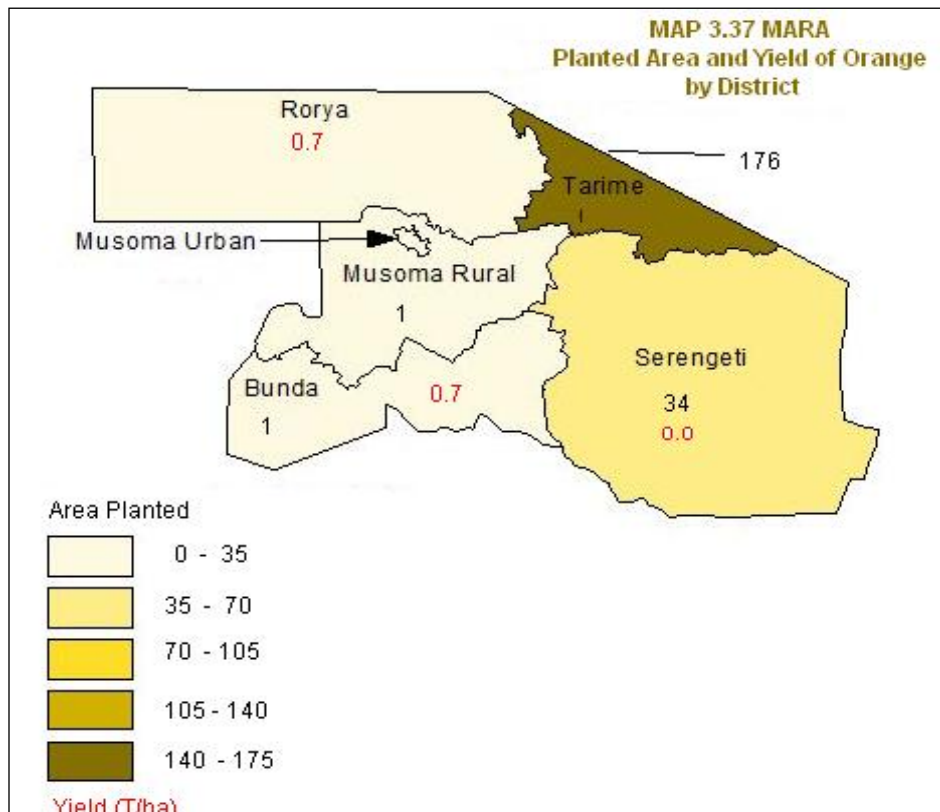
The total production of orange by smallholders was 998 tonnes. In terms of area planted, orange was the third most important permanent crop grown by smallholders in the region. It was grown by 1,213 households (0.5 % of the total crops growing households). The average area planted with orange per household was relatively small at around 0.21 ha per orange growing household.

Tarime had the largest planted area of orange in the region (176 ha, 67.89% of the total area planted with orange), followed by Rorya (48 ha, 18.3%), Serengeti (34 ha, 13.8%), Musoma Rural (1 ha, 0.3%) and Bunda (1 ha, 0.6%). There was no data reported on the production of oranges in Musoma Urban district (Map 3.37). The area planted with orange per orange growing household was highest in Tarime (0.63 ha), followed by Serengeti (0.2 ha). Rorya (0.09ha) and Bunda (0.02 ha). Musoma Rural had the smallest area planted with orange per orange growing household of 0.01 hectares (Chart 3.47 and Maps 3.37 and 3.38).





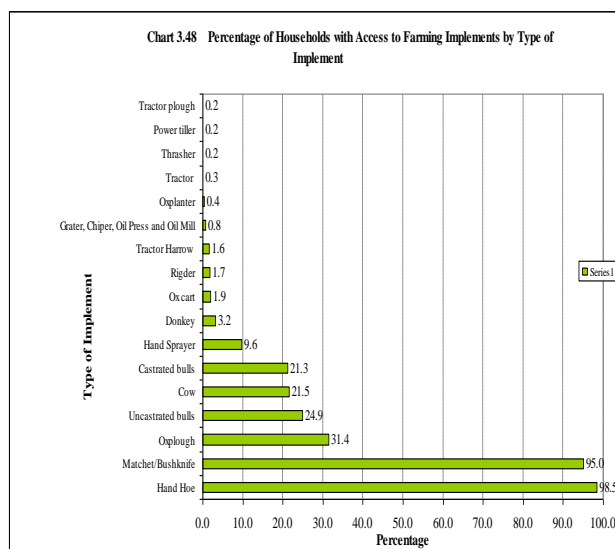




3.5 Access to Implements and Input use

3.5.1 Access to Implements

The majority of the implements found on farming households in the region are hand hoes (223,247 households, 98.5%) and sword/bushknife (215,406 households, 95.0%). Relatively a small number of households used other farming implements such as ox-plough (71,192 households, 31.4%), uncastrated bulls (56,391 households, 24.9%), cows (48,746 households, 21.5%), castrated bulls (48,182 households, 21.3%). Other farming implements which was used accounted for a very small percent (less than 20%) with powertiller thrasher and tractor plough having a least percent of households (0.2% and 0.17%) respectively (Chart 3.48).



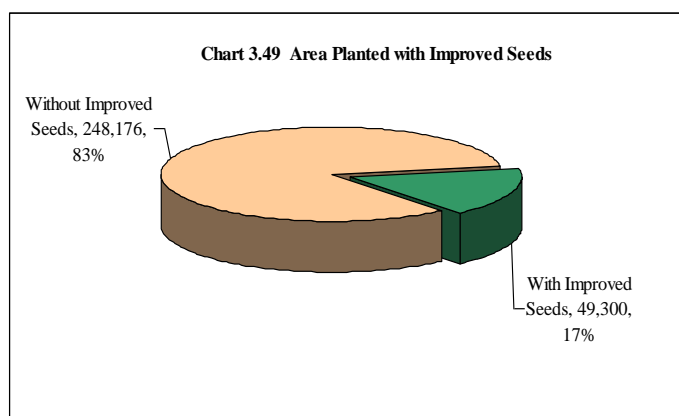
In the region, large numbers of households that used hand hoes were mainly found in Tarime (99.3% of the total agricultural households) followed by Serengeti (98.8%), Musoma rural and Rorya each with 98.3 percent, Musoma urban (97.8%) and Bunda (97.5%). Likewise, households that used sword/bushknife were mainly found in Serengeti (98.8%), followed by Tarime (97.8%) and Rorya (95.8%). Other districts with access to sword/bushknife ranged from 89 to 93 percent. The general indication is that the majority of the households relied on manual implements (Table 3.11).

Table 3.11 Percentage of Households Using Farm Implement by Type of Implement and District

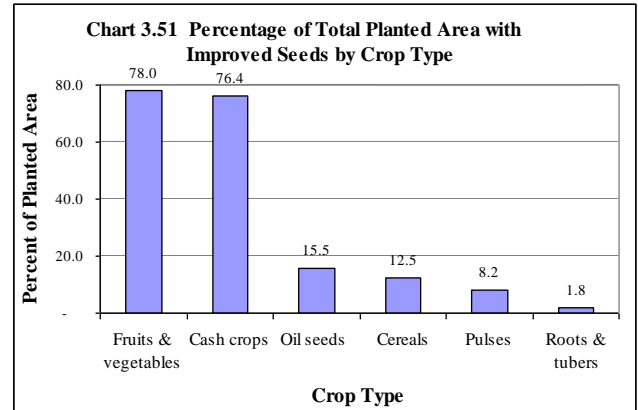
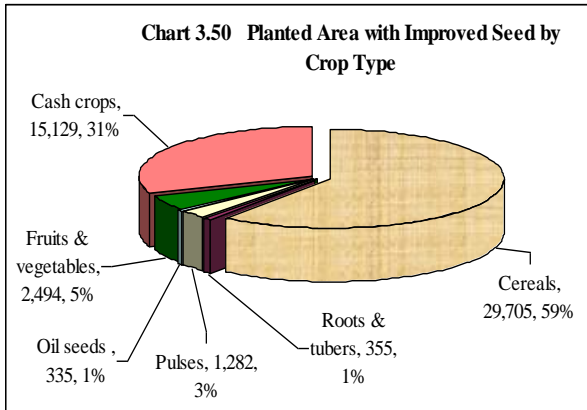
Type of Implement	Tarime	Serengeti	Musoma Rural	Bunda	Musoma Urban	Rorya	Total
	Percentage						
Matchet/Bushknife	97.8	98.8	92.6	90.9	88.9	95.8	95.0
Hand Hoe	99.3	98.8	98.3	97.5	97.8	98.3	98.5
Hand Sprayer	11.6	12.3	5.7	16.8	6.7	2.7	9.6
Grater, Chipper, Oil Press and Oil Mill	1.2	1.7	0.0	0.2	2.2	1.0	0.8
Oxplough	50.6	38.3	15.6	25.9	0.0	27.9	31.4
Oxplanter	1.0	0.2	0.0	0.2	0.0	0.5	0.4
Ox cart	2.5	2.7	1.0	2.5	0.0	1.5	1.9
Trekta	0.2	0.2	0.0	0.2	0.0	0.7	0.3
Tractor plough	0.2	0.5	0.0	0.0	0.0	0.2	0.2
Tractor Harrow	2.5	1.5	1.2	1.0	2.2	1.5	1.6
Castrated bulls	28.6	30.9	13.6	23.7	0.0	10.9	21.3
Uncastrated bulls	34.6	35.8	12.3	20.2	2.2	25.9	24.9
Cow	33.3	31.6	9.1	13.8	2.2	23.0	21.5
Donkey	7.9	1.7	2.0	1.0	2.2	2.0	3.2
Thrasher	0.0	0.5	0.2	0.2	2.2	0.2	0.2
Power tiller	0.0	0.2	0.2	0.2	0.0	0.2	0.2
Rigder	5.9	0.2	0.2	0.0	0.0	0.7	1.7

3.5.2 Improved Seeds Use

The total planted area using improved seeds was 49,300 ha which represents 17 percent of the total area planted with the annual crops and vegetables. The percentage use of improved seed in the short rainy season was 16.4 percent, more or less same with the corresponding percentage use of improved seed during the long rainy season

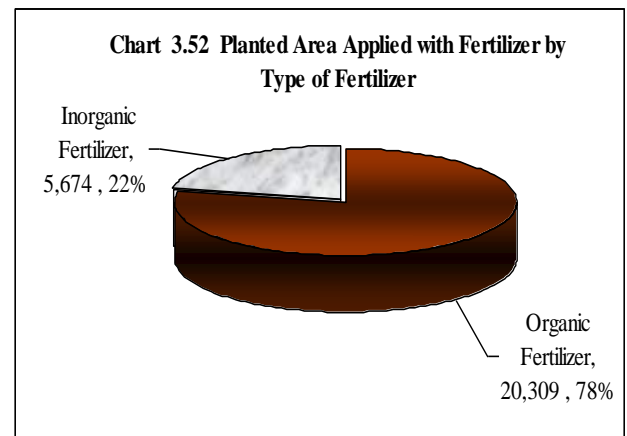


(16.8%)(Chart 3.49). Cereals had the largest planted area with improved seeds (29,705 ha, 59 % of the planted area with improved seeds), followed by cash crops (15,129 ha, 31%), fruits and vegetables (2,494 ha , 5%), pulses (1,282 ha, 3%), pulses and roots and tubers each had 355 ha, (1%) (Chart 3.50). However the proportion of area planted with improved seeds to total area planted with annual crops was higher for fruits and vegetables and cash crops. (Chart 3.51)



3.5.3 Fertilizer Use

The use of fertilisers on annual crops was very small with a planted area of only 25,983 ha (8.7% of the total annual crops planted area in the region). Of the planted area with fertiliser application, organic fertiliser was applied on 20,309 ha representing 78 percent of the total planted area applied with fertilizer and inorganic fertilizers were used on a small area which representing 22 percent of the area planted with fertilizers (Chart 3.52).



The highest percentage of the area planted with fertilizer (all types) was in Tarime district (45.6% of the total area applied with fertilizer), followed by Musoma Rural (16.4%), Serengeti (15.5%), Rorya (12.1%), Bunda (10.3%) and Musoma Urban (0.1%), (Chart 3.53 and Table 3.12).

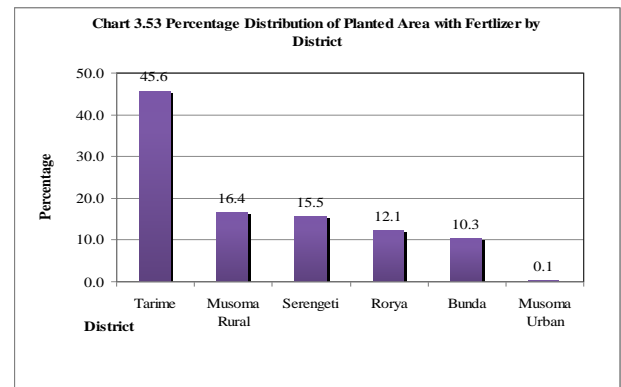


Table 3.12 Planted Area with Fertilizer by Type of Fertilizer, Season and District

District	Short Rainy Season		Long Rainy Season		Short and Long Rainy Seasons			Percentage
	Planted Area Applied with Organic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Planted Area Applied with Organic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Planted Area Applied with Organic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Planted Area Applied with Fertilizer (both types)	
Tarime	5,564	1,941	2,827	1,523	8,391	3,464	11,855	45.6
Serengeti	1,638	532	1,432	418	3,070	950	4,020	15.5
Musoma Rural	2,281	457	1,383	131	3,664	588	4,252	16.4
Bunda	1,122	463	929	157	2,051	620	2,671	10.3
Musoma Urban	15	0	19	0	34	0	34	0.1
Rorya	801	0	2,298	52	3,099	52	3,151	12.1
Total	11,421	3,392	8,888	2,282	20,309	5,674	25,983	100

3.5.3.1 Organic Fertilizer Use

The total planted area applied with organic fertilizer in Mara region was 20,309 ha representing 6.8 percent of the total area planted during that season.

Organic fertilizer is mostly used in Tarime (41.3% of the total planted area with fertilizers in the region), followed by Musoma Rural (18%), Rorya (15.3%), Serengeti (15.1%), Bunda (10.1%), and Musoma Urban (0.2%) ((Table 3.13 and Chart 3.54).

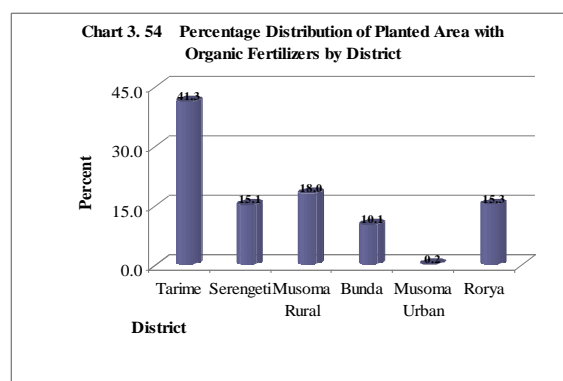


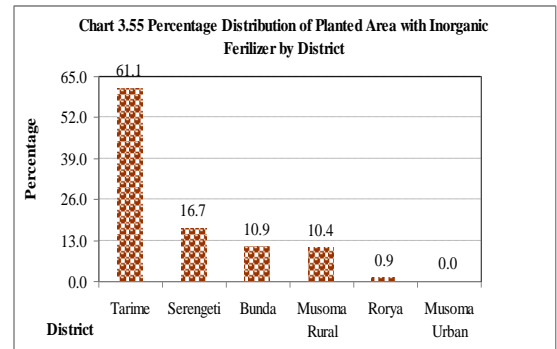
Table 3.13 Total Planted Area Applied with Organic Fertilizer and Percentage of Total Area Applied with Organic Fertilizer by District – Short and Long rainy Season

District	Planted Area Applied with Organic Fertilizer	Percentage of Total Area Applied with Organic Fertilizer	Total Planted Area (ha)	Percentage of Total Area Planted
Tarime	8,391.20	41.3	87,851	9.6
Serengeti	3,070.00	15.1	62,497	4.9
Musoma Rural	3,664.40	18	51,621	7.1
Bunda	2,051.30	10.1	57,681	3.6
Musoma Urban	33.5	0.2	216	15.5
Rorya	3,098.50	15.3	37,610	8.2
Total	20,308.90	100	297,475	6.8

3.5.3.2 Inorganic Fertilizer Use

The total planted area applied with inorganic fertilizers in Mara region was 5,674 ha which represents 22 percent of the total planted area with fertiliser in Mara region

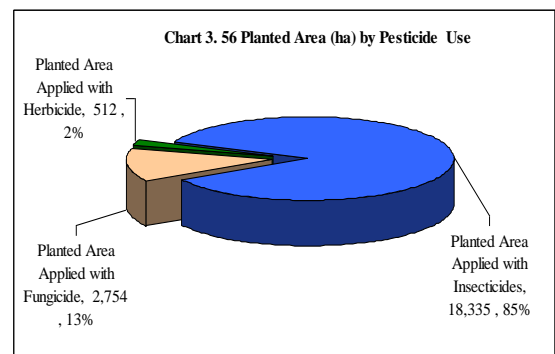
Inorganic fertiliser was mostly used in Tarime (61.1% of the total planted area with Inorganic Fertilizer in the Region), followed by Serengeti (16.7%), Bunda (10.9%), Musoma Rural (10.4%), and Rorya (0.9%). Inorganic fertilisers was not applied in Musoma Urban. (Chart 3.55).



3.5.4 Pesticides Use

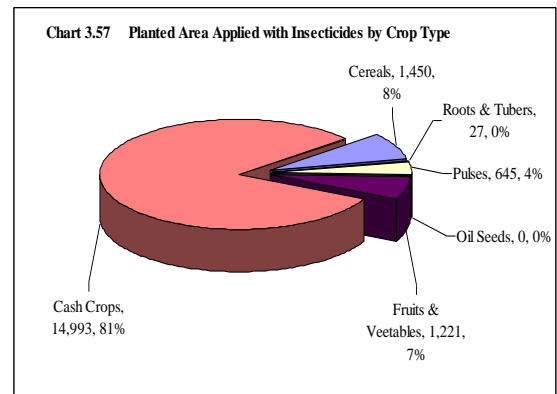
Pesticides are chemicals used for controlling insects, diseases and weeds. This section analyses the use of these chemicals by smallholders in annual crops in the region. Pesticides were applied to a planted area of 21,601 ha of annual crops and vegetables.

Insecticides are the most common pesticide used in the region (85% of the total area applied with pesticides). This was followed by fungicides(13%) and herbicides (2%) (Chart 3.56).

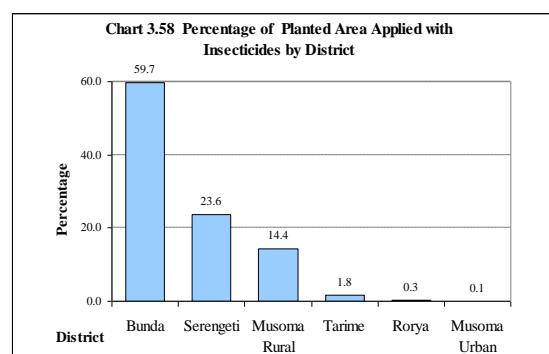


3.5.4.1 Insecticide Use

The planted area applied with insecticides was 18,335 ha which represented 85 percent of the total planted area applied with pesticides. Cash crops had the largest area applied with insecticides (14,993 ha, 81% of the total planted area with insecticides) followed by cereals (1,450 ha, 8%), fruits and vegetables (1,221 ha, 7%), pulses (645 ha, 4%), roots and tubers (27 ha, 0.1%). There was no application of insecticides on oil seed crops (Chart 3.57)



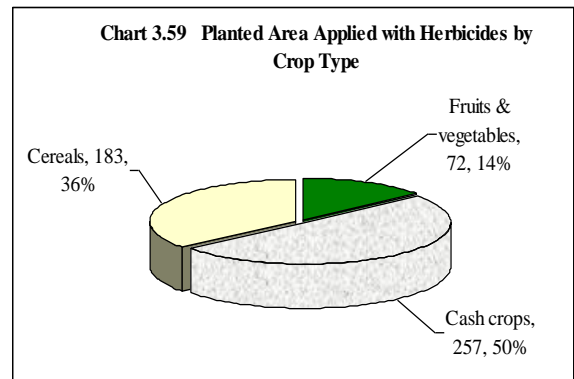
Bunda had the highest percentage of planted area with insecticides (59.7% of the total planted area applied with insecticides in the region). This was followed by Serengeti (23.6%), Musoma Rural (14.4%), and Tarime (1.8%). The smallest percentage use was recorded in Musoma Urban district (0.1%) followed by Rorya



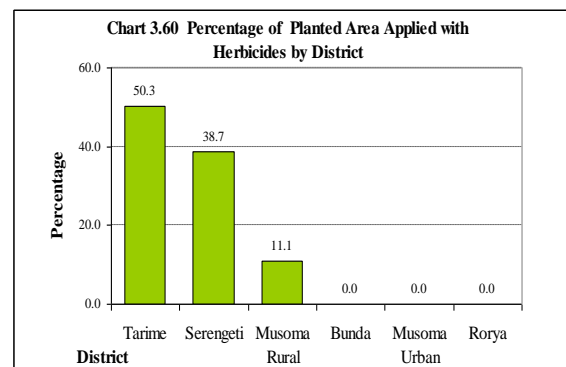
(0.3%) (Chart 3.58).

3.5.4.2 Herbicide Use

The planted area applied with herbicides was 512 ha which represents 3 percent of the total planted area applied with pesticides in the region. Cash crops had the largest area applied with herbicides (257 ha, 50% of the total planted area with herbicides) followed by cereals (183 ha, 36%) and fruits and vegetables (72 ha, 14%). There was no data recorded on the planted area applied with herbicides on oil seed crops, pulses and roots and tubers (Chart 3.59)



Tarime had the highest percentage of planted area with herbicides (50.3% of the total planted area with herbicides in the region). This was followed by Serengeti (38.7%), and Musoma Rural (11.1%). In the remaining districts data on the planted area applied with herbicides was not recorded (Chart 3.60).

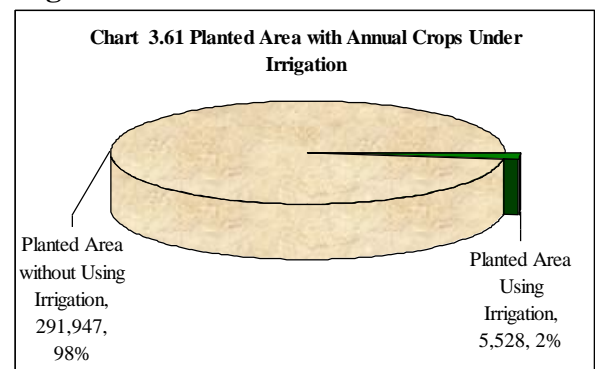


3.6 Irrigation

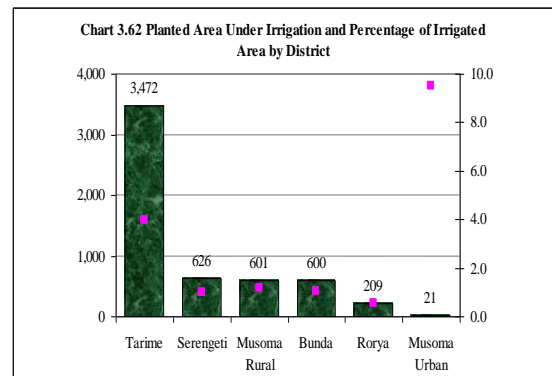
Water is the limiting factor to crop production in the majority areas in Tanzania and without water most other agricultural practices applied to crops do not result in significant increases in yields. This section deals with the area under irrigation for different crops and the means by which water was extracted from the source and applied to the field.

3.6.1 Area Planted with Annual Crops and Under Irrigation

In Mara region, the area of annual crops under irrigation was 5,528 ha representing 1.9 percent of the total planted area (Chart 3.61).

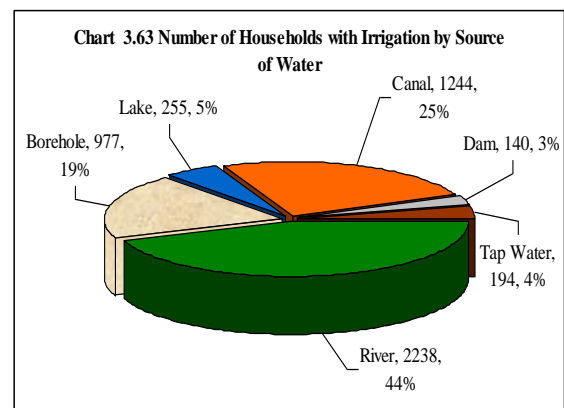


The district with the largest planted area under irrigation with annual crops was Tarime (3,472 ha, 63% of the total annual crops irrigated planted area in the region). This is followed by Serengeti, Musoma Rural, and Bunda with 11 percent each with planted area under irrigation of 626 hectares, 601 hectares, and 600 hectares respectively. When expressed as a percentage of the total area planted in each district, Musoma Urban had the highest percentage with 9.5% of the planted area in the district under irrigation. This was followed by Tarime (4%), Musoma Rural (1.2%), Serengeti and Bunda at 1 percent each and Rorya having the least percentage (0.6%) (Chart 3.62 and Map 3.40).



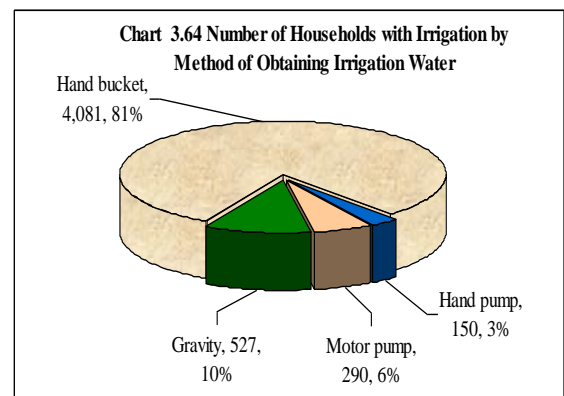
3.6.2 Sources of Water Used for Irrigation

The main source of water used for irrigation was from river (44% of households with irrigation), followed by canal (25%), borehole (19%), lake (5%), tap water (4%), and dam (3%) (Chart 3.63). Lake, and canals are the main source of irrigation water for most households using irrigation in Rorya district (50%) while most households using irrigation in Tarime, Musoma Rural and Serengeti districts get their irrigation water from river (60%, 50% and 43%) respectively. However, the households in Musoma Urban (83%) and Bunda district (38%) get irrigation water from borehole.

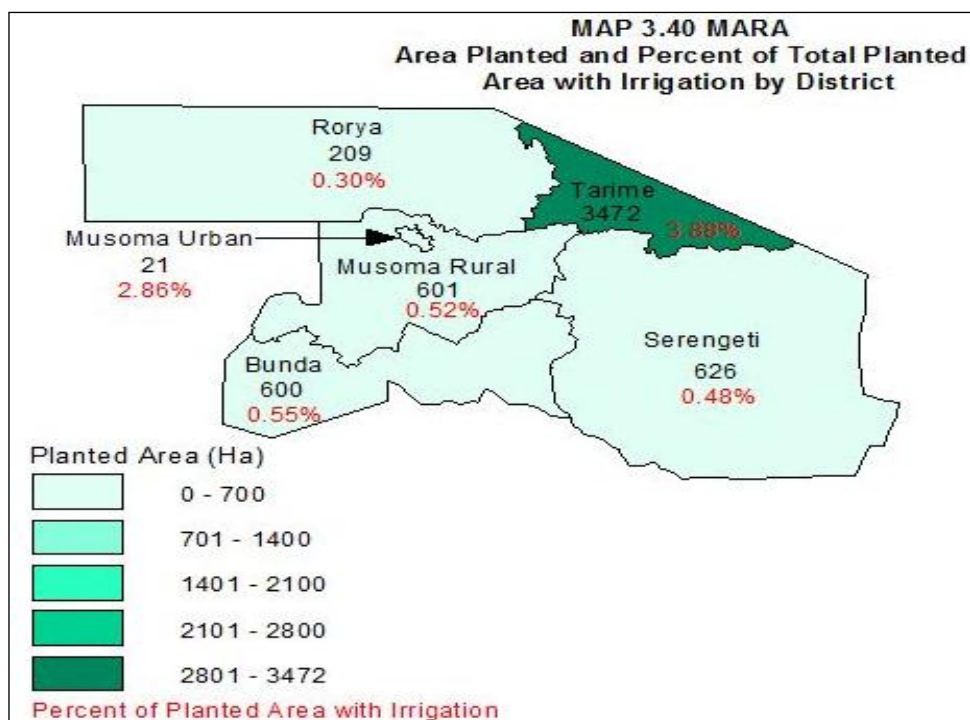
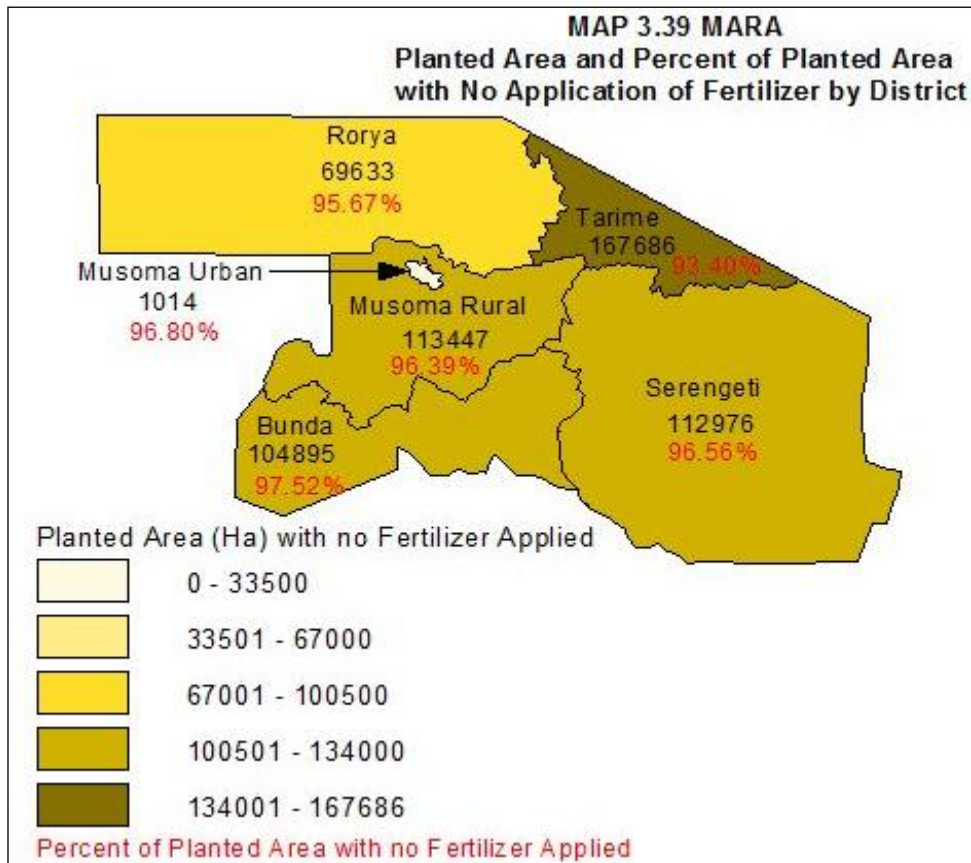


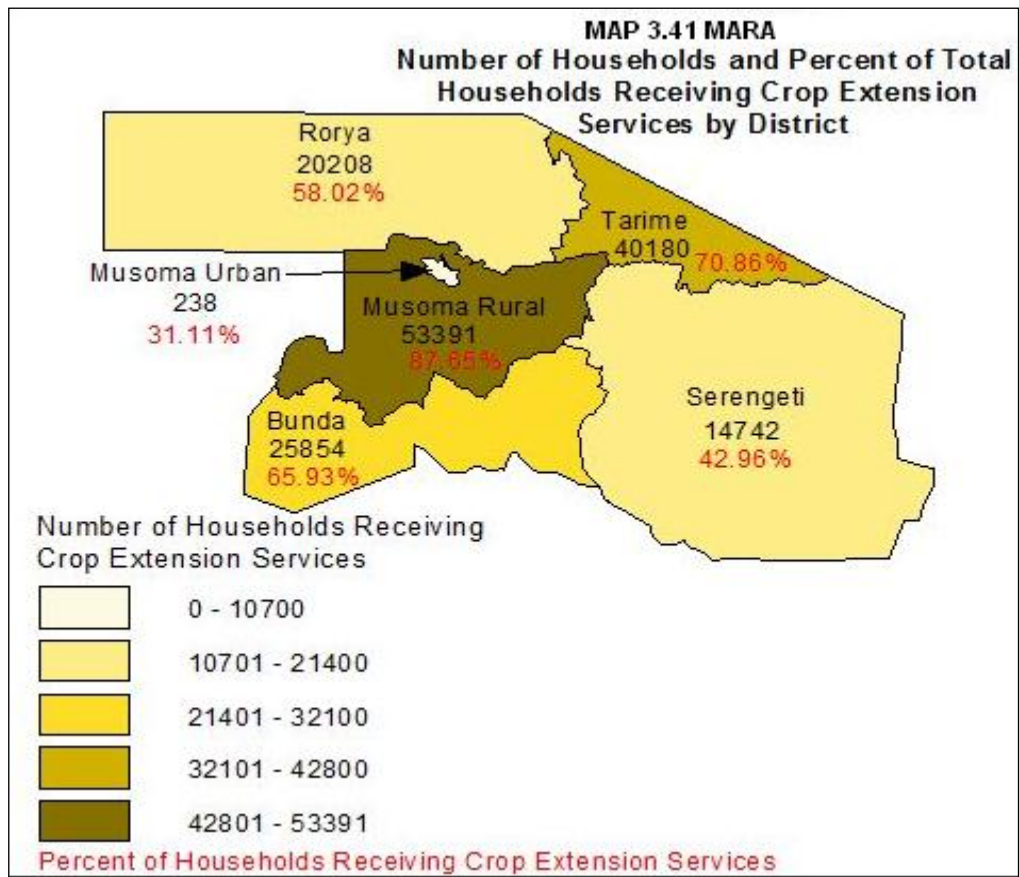
3.6.3 Methods of Obtaining Water for Irrigation

Hand bucket was the most common method of obtaining water for irrigation with 81 percent of households practising irrigation. This is followed by gravity with 10 percent of households, motor pump (6%), and hand pump (3%) (Chart 3.64).



All households with irrigation in Tarime, Serengeti and Musoma Urban districts used hand bucket in obtaining water from the source, followed by Musoma Rural (89%), Rorya (50) and Bunda (25%) districts. Hand pump and motor pump methods was used by few households in Musoma Rural (6%) and Bunda (38%) districts respectively. Gravity method was widely used by households in Rorya (50%), Bunda (38%) and Musoma Rural (6%) .



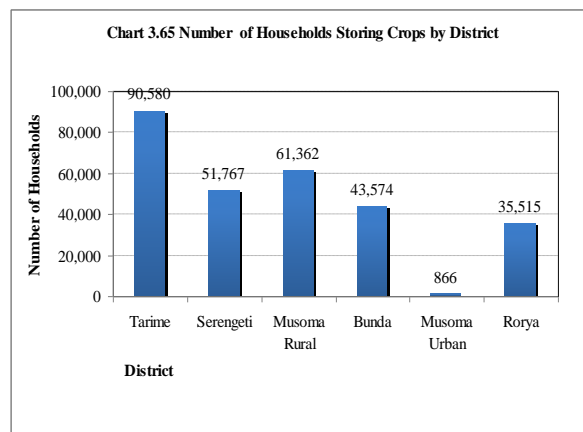


3.7 Crop Storage and Marketing

3.7.1 Crop Storage

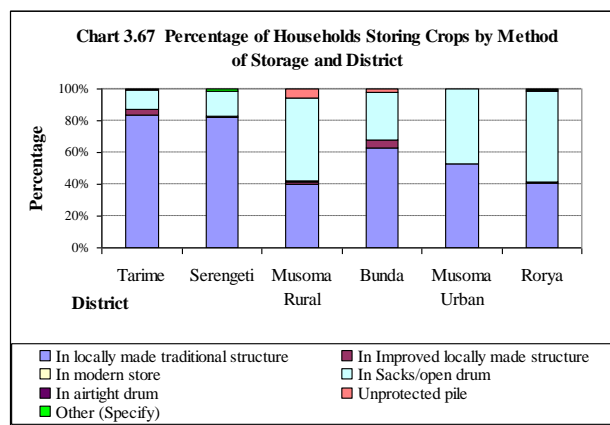
Crop storage means keeping a crop for a certain period of time as food for the household in order to sell it at higher prices and used as seeds for planting in the following season.

The results for Mara region show that there were 283,663 crop growing households (92.7% of the total crop growing households) that stored various agricultural products during the two seasons in Mara region. Tarime had the largest number of households storing crops in the region (90,580 hh, 32 percent of the households storing crops in the region). This is followed by Musoma Rural (61,362 hh, 22%), Serengeti (51,767 hh, 18%), Bunda (43,574 hh, 15%), and Rorya (35,515 hh, 13%). Musoma Urban had the smallest number of households storing crops reported by less than 1 percent (Chart 3.65).



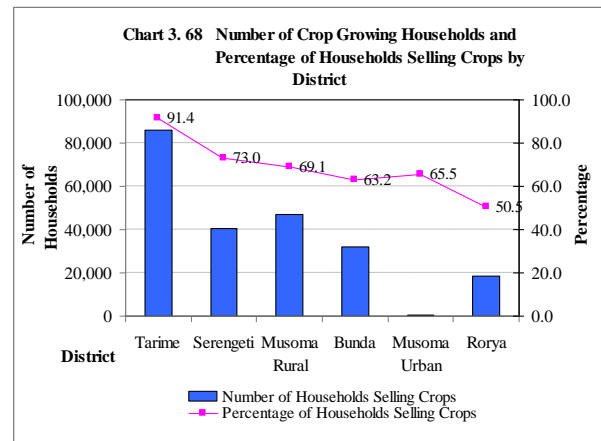
Storage in locally made traditional structures was the dominant storage method in the region, with Tarime district having the highest percentage of households using this method (84% of the total number of households storing crops in the district). This was followed by Serengeti (82%), Bunda (63%), Musoma Urban (53%), Rorya and Musoma Rural (40%) each.

Rorya had the highest percent of households using sacks/open drums (57%). This is followed by Musoma Rural (52%), Musoma Urban (47%), Bunda (30%), Serengeti (16%), and Tarime (12%) (Chart 3.67).



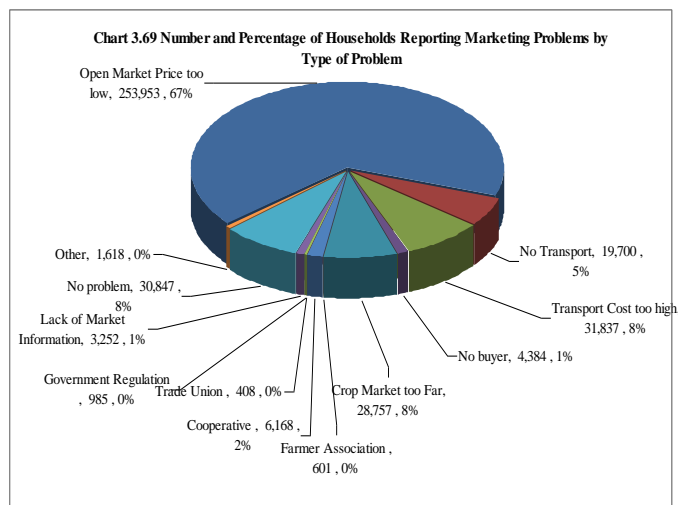
3.7.2 Crop Marketing

The number of households that reported selling crops was 224,803 which represent 73.5 percent of the total number of crop growing households reporting sell of crops in the short and long rainy season. The proportion of crop growing households selling crops was highest in Tarime (91.4%), followed by Serengeti (73%), Musoma Rural (69.1%), Musoma Urban (65.5%), Bunda (63.2%) and Rorya (50.5%) (Chart 3.68).



3.7.2.1 Main Marketing Problems

Low price for agricultural produce was the main marketing problem reported by households (67% of crop growing households that reported main marketing problems). Apart from low market prices, other problems in their order of importance were high transport costs (8.3%), longer distance to the markets (7.5%), lack of transport (5.2%), cooperative problems (1.6%), and lack of buyers (1.1%). Other marketing problems were minor and represented less than 1 percent of the total reported problems.



However, 8.1 percent of the households selling crops reported of not experiencing any marketing problems (Chart 3.69).

3.8 Access to Crop Production Services

3.8.1 Access to Agricultural Credit

The census result shows that in Mara region very few agricultural households (2,319, 1% of agricultural households in the region) accessed credit out of which 1,943 (83.8%) were accessed by male household members and 376 (16.2%) were accessed by female household members. In Serengeti district only male household members accessed agricultural credit whereas in Rorya district both male and female household members accessed agricultural credit at fifty percent each.

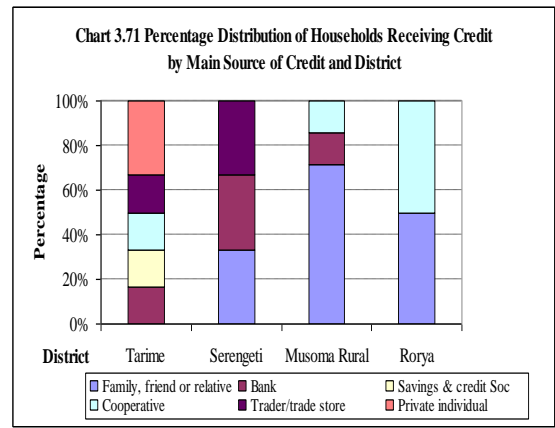
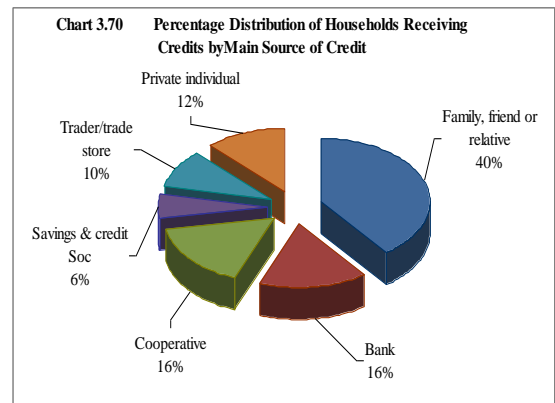
In the remaining districts more male household members than female household members accessed credit. Access to credit was not reported in Bunda and Musoma Urban districts (Table 3.14).

Table 3.14 Number of Credits Received by Sex of the Household Member Receiving Credit and District

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Tarime	700	83.3	140	16.7	840	100
Serengeti	254	100	0	0	254	100
Musoma Rural	902	85.7	150	14.3	1,053	100
Bunda	0	0	0	0	0	0
Musoma Urban	0	0	0	0	0	0
Rorya	86	50	86	50	172	100
Total	1,943	83.8	376	16.2	2,319	100

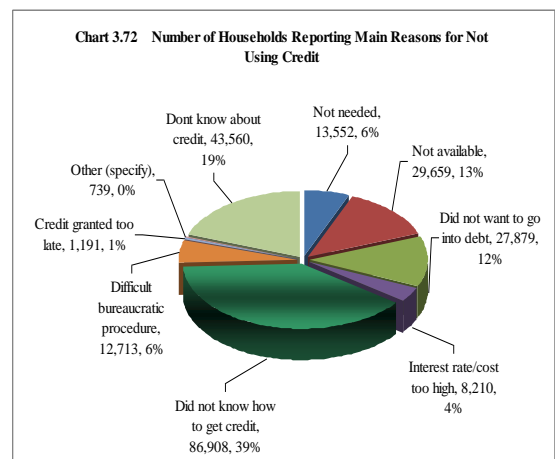
3.8.1.1 Source of Agricultural Credit

The major agricultural credit providers in Mara region was family, friends or relative (923 agricultural households 40 % of the total number of households that accessed credit), followed by banks and cooperatives, each provided credit to 16 percent of the total number of households that accessed credit. Private individual accounts for 12 percents of the households accessing credit, followed by trader/ trade store (10%) and credit societies (6%) (Chart 3.70). Family, friends or relatives were the main source of credit in Musoma Rural district (71% of the total households accessing credits) followed by Rorya (50%) and Serengeti (33%), while banks provided credit to most of the households in Serengeti (33%), Tarime (17%), and Musoma Rural (14%) districts. Saving and Credit Societies as well as private individuals were the main source of credit to households in Tarime district only. Cooperatives gave credit to households in Tarime and Musoma Rural, while trader and trade store provided credit to Tarime and Serengeti districts only. Bunda and Musoma Urban did not report any source of credit (Chart 3.71).



3.8.1.2 Reasons for Not Using Agricultural Credits

The main reason for not using agricultural credit was little credit awareness which accounted for 58 percent of the agricultural households in the region, (“did not know how to get credit” and “don’t know about credit”). This was followed by households reporting “un-availability of credit” (13%), followed by “not wanting to go into debt” (12%). The rest of the reasons accounted for 15 percent of the households (Chart 3.72).

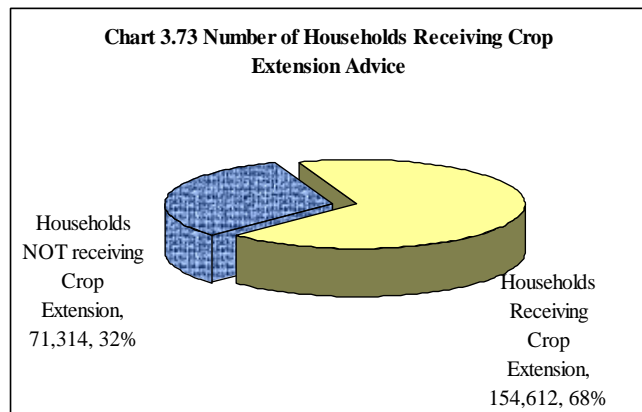


3.8.2 Crop Extension

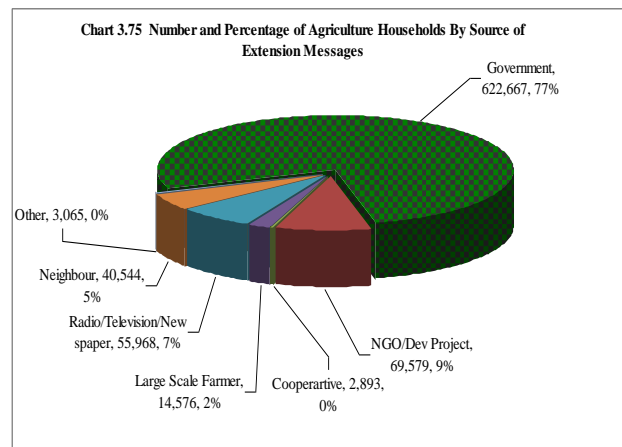
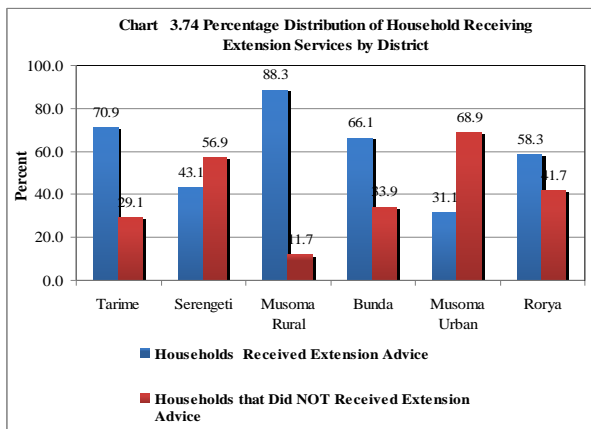
The number of Agricultural households that received crop extension was 154,612 (68% of the total crop growing households in the region) (Chart 3.73). Some districts had more access to extension services than others, with Musoma Rural having the highest proportion of households (88.3% of the crop growing households) that received crop extension messages, followed by Tarime (70.9%), Bunda (65.9%), Rorya (58.0%), Serengeti (42.9%) and Musoma Urban (31.1%), (Chart 3.74 and Map 3.41).

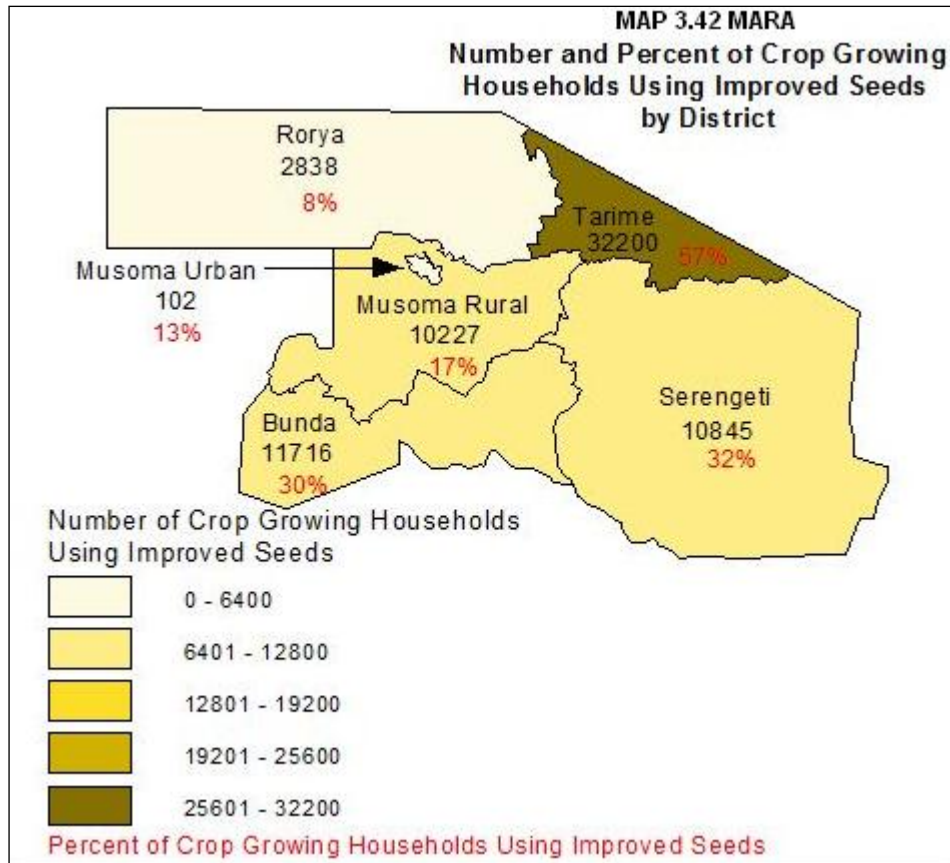
3.8.2.1 Sources of Crop Extension Messages

Of the households receiving extension advice the Government provided the greatest proportion (77%, 622,667 households). NGOs/Development projects provided 9 percent, Radio/Television/NewsPaper (7%), Neighbour (5%), and large scale farms 2 percent. The remaining sources were minor providing less than 1 percent (Chart 3.75).



However, district differences exist within the proportion of the households receiving advice from government services ranging from between 71.0 percent in Tarime to 98.6 percent in Musoma Urban.

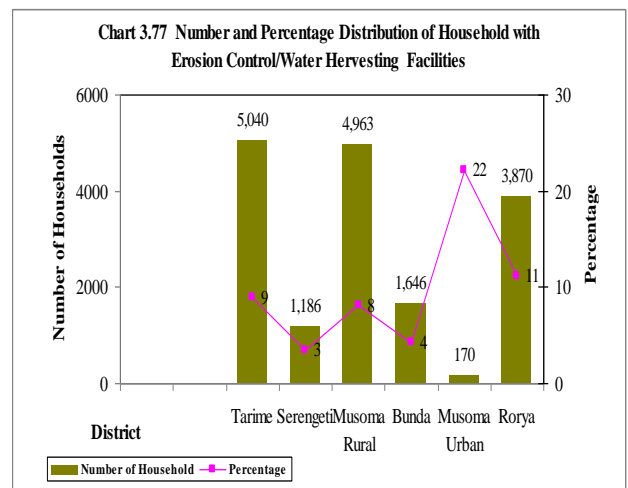
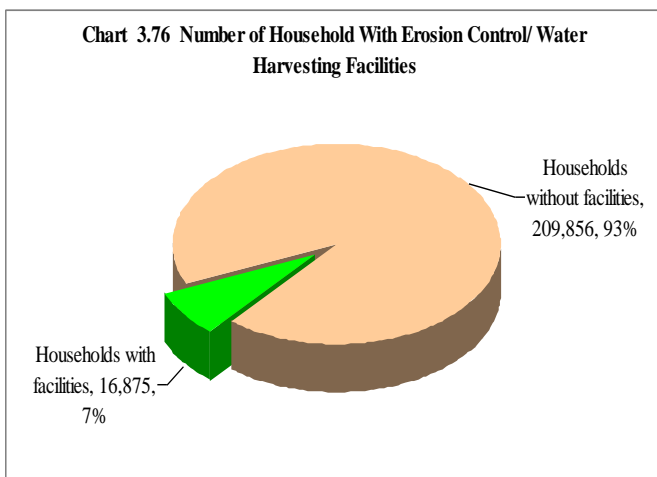




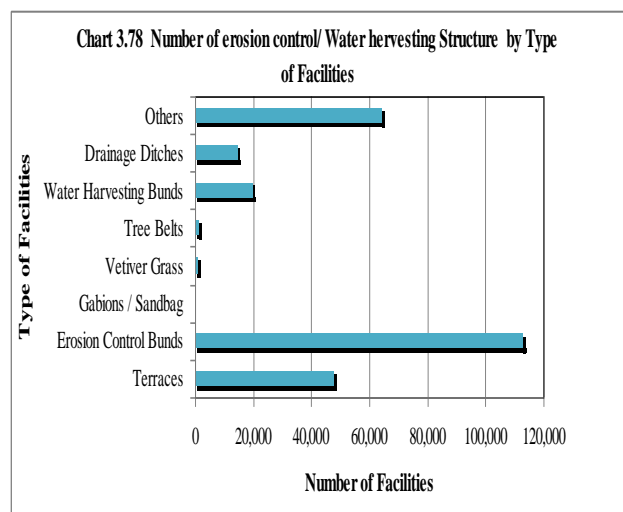
3.9 Erosion Control Facilities

Erosion control and water harvesting facilities are grouped together as they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production.

The number of agricultural households reported to have soil erosion problem in the region was 30,176 (13% of the total agricultural households). However, the number of agricultural households that had soil erosion and water harvesting facilities on their farms was 16,785 which represented 7 percent of the total number of agricultural households in the region (Chart 3.76). The proportion of households with soil erosion control and water harvesting facilities was highest in Musoma Urban district (22% of the total agricultural households in the district), followed by Rorya (11%), Tarime (9%), Musoma Rural (8%), Bunda (4%), and Serengeti (3%) (Chart 3.77).



Erosion control bunds accounted for 43.1 percent of the total number of structures, followed by terraces (18.3%), water harvesting bunds (7.6%), drainage ditches (5.5%), tree belts (0.5%), vetiver grass (0.5%) and Gabions/Sandbags (0.1%) (Chart 3.78). Erosion control bunds and terraces, together had 160,965 structures. This represented 61.4 percent of the total structures in the region. The remaining 39.6 percentages were shared among the rest of the erosion control methods mentioned above. Musoma Rural district had 167,692 erosion control structures representing 63.9 percent of the total erosion structures in Mara region. This is followed by tarime district (43,540 structures, 16.6%). The remaining districts had smaller proportion with less than 10 percent each.



3.10 Livestock Results

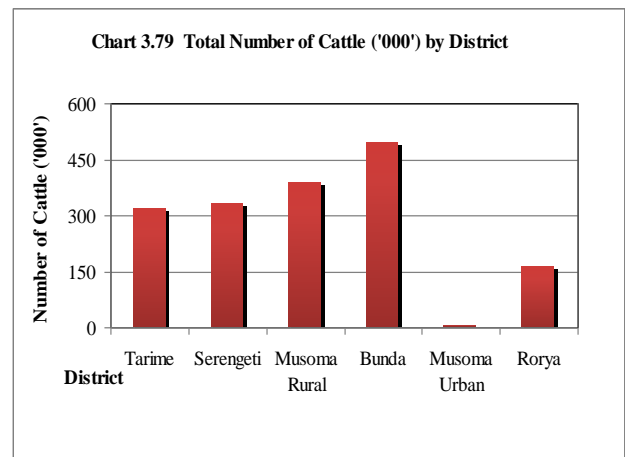
3.10.1 Cattle Production

The total number of cattle in the region was 1,691,118. Cattle were the dominant livestock type in the region, followed by goats, sheep and pigs. The region had 7.9 percent of the total cattle population on Tanzania Mainland.

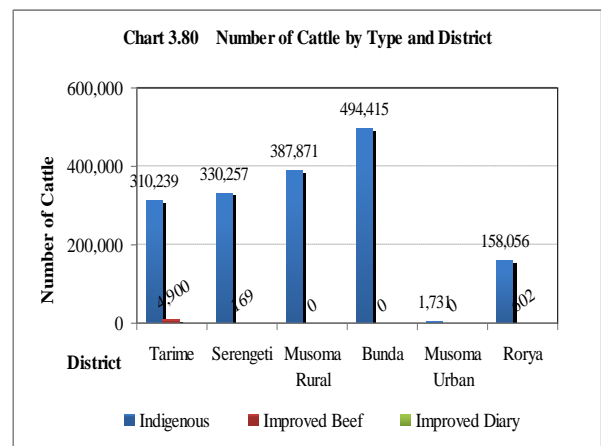
Cattle Population

The number of indigenous cattle in Mara region was 1,682,569 (99.5 % of the total number of cattle in the region). The number of dairy breeds was 2,877cattle (0.2%) and 5,671 cattle (0.3%) were beef breeds.

The census results show that 96,540 agricultural households in the region (43% of total agricultural households) kept about 1.7 million cattle. This was equivalent to an average of 17 heads of cattle per cattle-keeping-household. The district with the largest number of cattle was Bunda which had about 494,415 cattle (29.2 % of the total cattle in Mara region). This is followed by Musoma Rural (388,022 cattle, 22.9%), Serengeti 330,765 cattle, 19.6%), and Tarime (315,979 cattle, 18.7%). Musoma Urban had the least number of cattle (1,731 cattle, 0.1%), followed by Rorya (160,206 cattle, 9.5%) (Chart 3.79 and Map 45). However, Bunda district had the highest density of cattle in the region (4,560 heads per sq km) (Map 3.46).



In Tarime district the largest number of cattle were indigenous. The number of dairy cattle was insignificant and the number of beef cattle was very small. Bunda district had the largest numbers of dairy and beef cattle in the region. In general, the number of beef cattle in the region was insignificant (Chart 3.80).

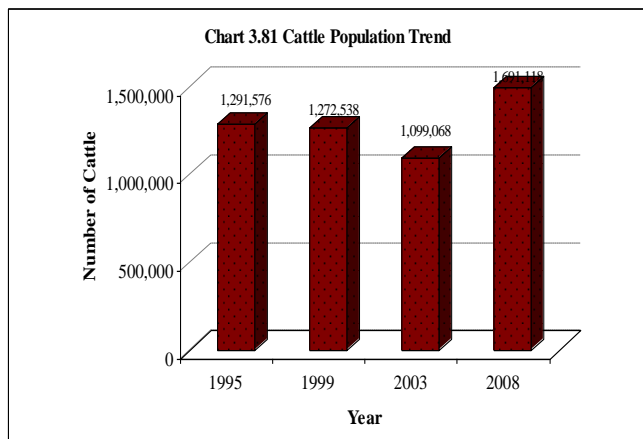


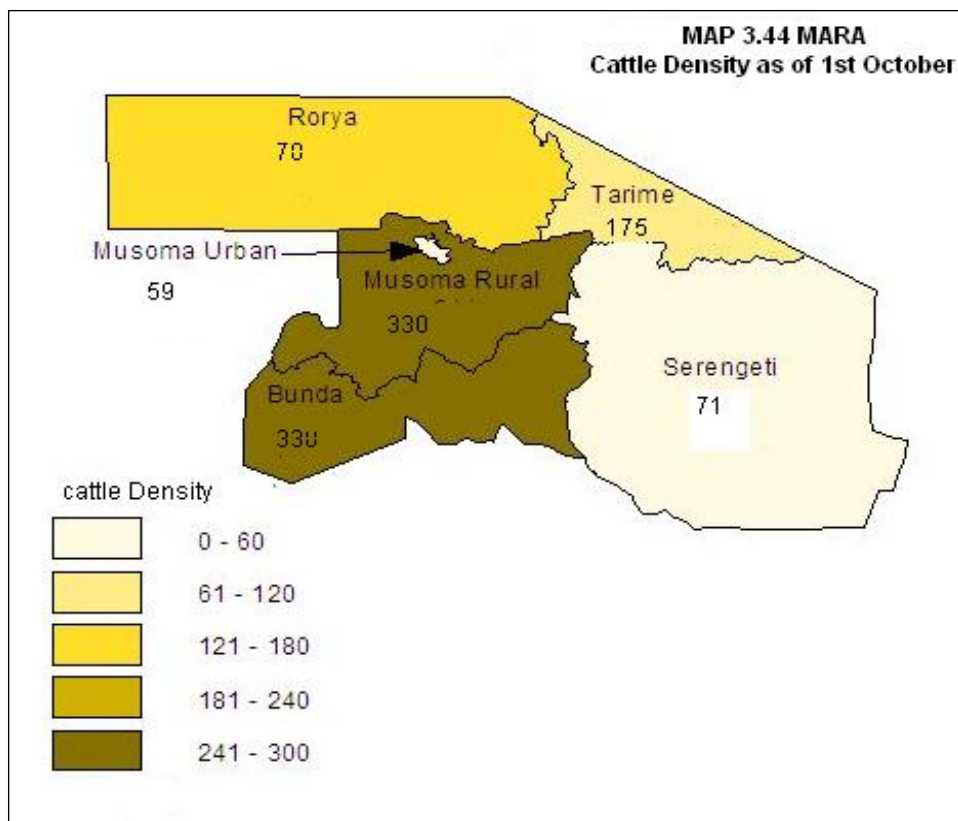
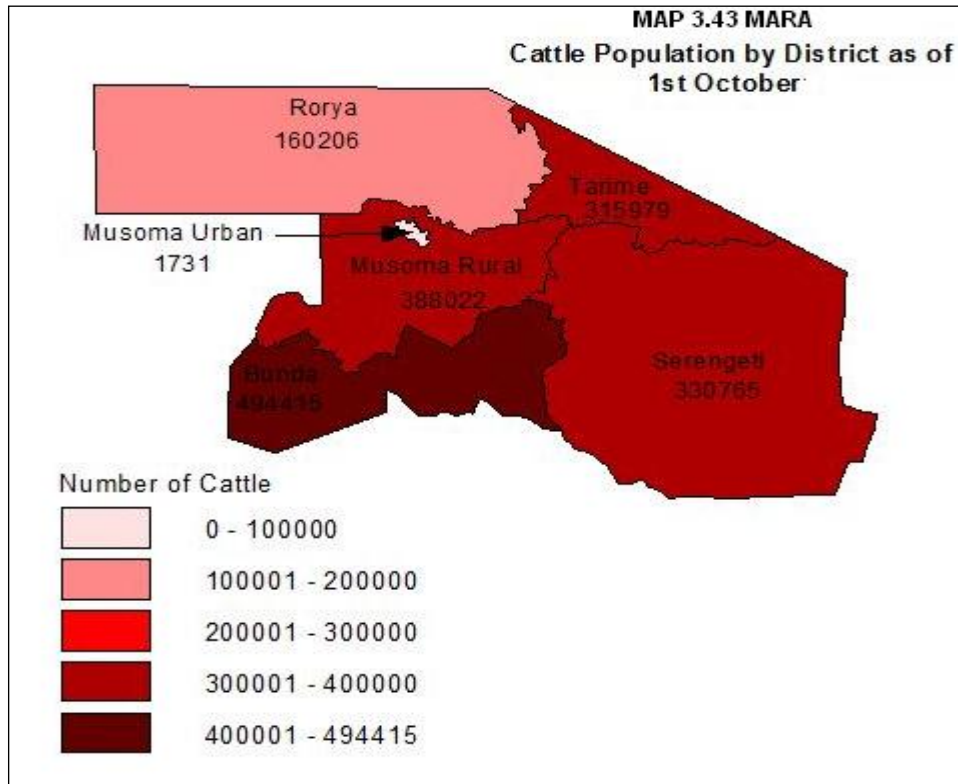
Herd Size

Thirty three percent of the cattle-rearing households had herds of size 1-5 cattle with an average of 3 cattle per household. Herd size of 31-40 accounted for about 4.5 percent of all cattle-rearing households and 9 percent of all cattle in the region. Only 10.8 percent of the cattle rearing households had herd size of 31- 100 cattle. About 87 percent of total cattle rearing households had herd of size 1-30 cattle accounted to 46 percent of total cattle in the region, resulting in an average of 9 cattle per cattle rearing household. There were about 1,160 households with a herd size of more than 151 cattle each (252,057cattle in total) resulting in an average of 217 cattle per household.

Cattle Population Trend

Cattle population in Mara increased during the period of five years from 1,099,068 cattle in 2003 to 1,691,118 cattle in 2008. This implies an overall annual positive growth rate of 9 percent





Improved Cattle Breeds

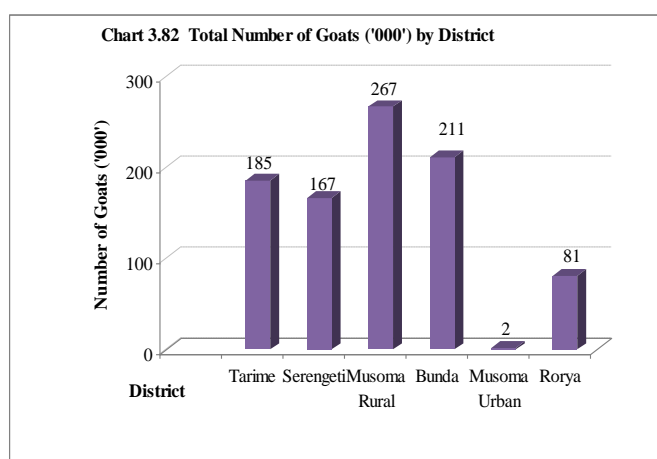
The total number of improved cattle in Mara region was 8,548 (2,877 dairy and 5,671 improved beef). The dairy cattle constituted 0.2 percent of the total cattle and 33.7 percent of improved cattle in the region. The number of beef cattle in the region constituted 66.3 percent of the total number of the improved cattle and 0.3 percent of the total cattle. The number of improved cattle decreased from 9,061 in 2003 to 8,545 in 2008 at an annual rate of -1.2 percent.

3.10.2 Goat Production

Goat rearing was the second most important livestock keeping activity in the region, followed by sheep and pig rearing. In terms of the total number of goats, Mara region ranked 6 out of the 21 regions of Tanzania Mainland with 6 percent of the total goats.

Goat Population

The number of goat-rearing households in Mara region was 95,821 (42% of all agricultural households in the region) with a total number of 913,524 goats giving an average of 10 head of goats per goat-rearing household. Musoma Rural district had the largest number of goats (266,802 goats, 29.2% of all goats in the region), followed by Bunda (211,284 goats, 23.1%), Tarime (185,499 goats, 20.3%), Serengeti (166,992 goats, 18.3%) Rorya (81,436 goats, 8.9%) and Musoma Urban (1,511 goats, 0.2%) (Chart 3.82 and Map 3.45). However Musoma Rural district had the highest density of goats in the region (171 head per square km) (Map 3.46).



Goat Flock Size

Eighty one percent of the goat-rearing households had flock size of 1-4 goats with an average of 2 goats per goat rearing household. About 98 percent of total goat-rearing households had flock size of 1-14 goats accounted to 83 percent of the total goats in the region resulting in an average of 3 goats per goat-rearing households. The region had 666 households (0.2%) with flock size of 40 or more goats each (31,272 goats in total), resulting in an average of 47 goats per goat rearing Household

Goat Breeds

Goat husbandry in the region was dominated by the indigenous breeds that constituted 98.8 percent of the total goats in Mara region. Improved goats for diary goats constituted 1.2 percent of the total goats. Improved goats for meat were not recorded in Mara region.

Goat Population Trend

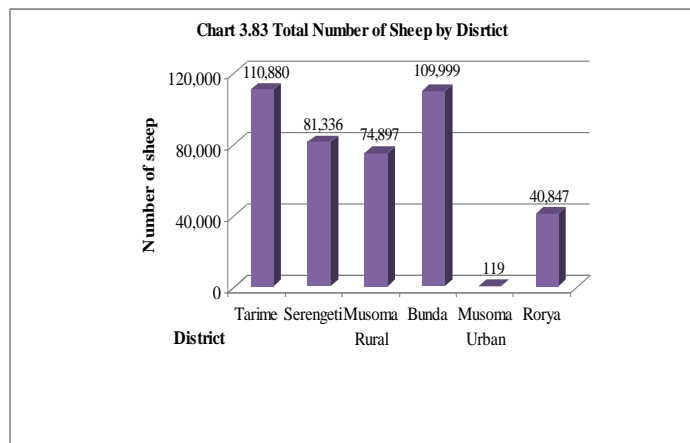
The overall annual growth rate of goat population from 2003 to 2008 was 7.6 percent. This positive trend implies five years of population increase from 634,044 in 2003 to 913,524 in 2008.

3.10.3 Sheep Production

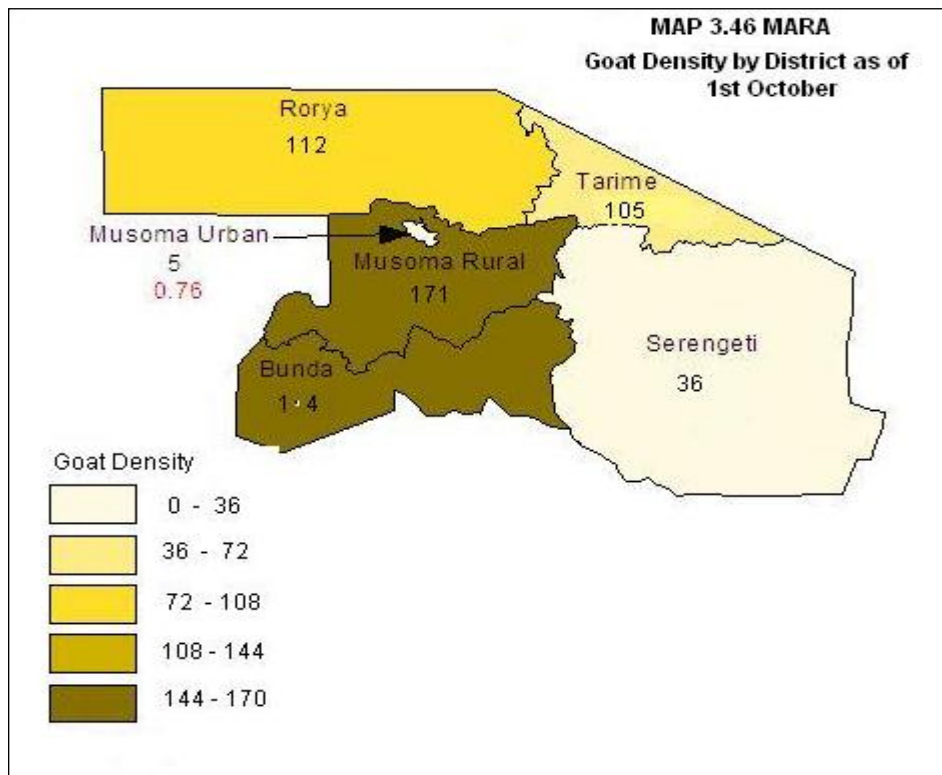
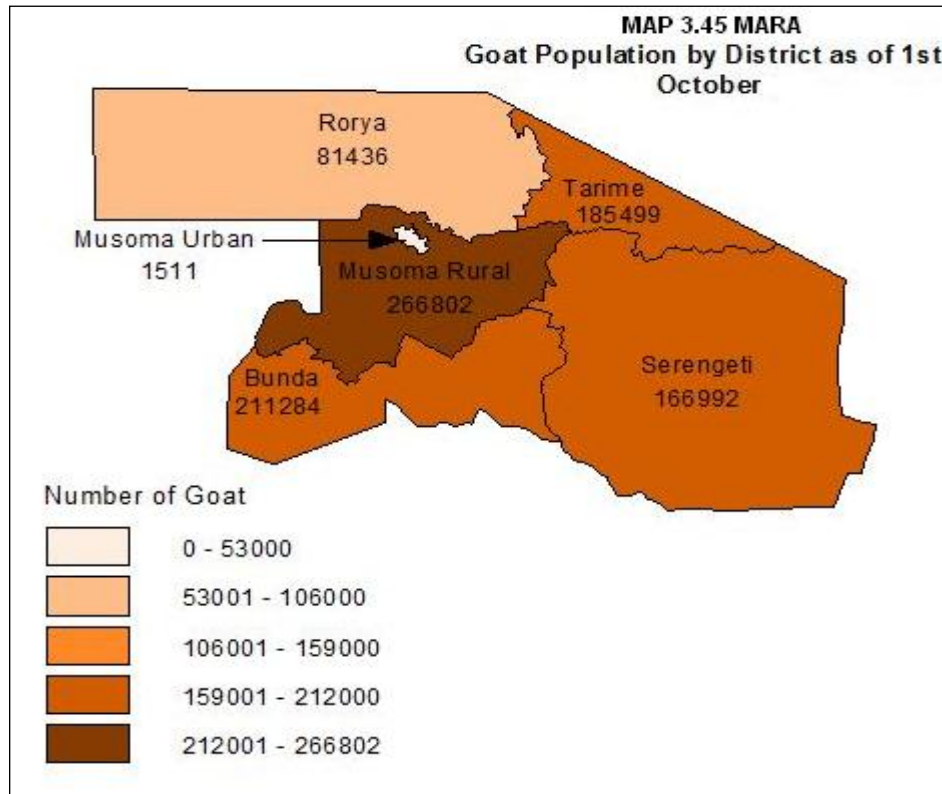
Sheep rearing was the third most important livestock keeping activity in Mara region after cattle and goats. The region ranked 5 out of 21 Mainland regions and had 7 percent of all sheep on Tanzania Mainland.

Sheep Population

The number of sheep-rearing households was 38,308 (17% of all agricultural households in Mara region) rearing 418,077 sheep, giving an average of 11 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Tarime with 110,880 sheep (26.5% of total sheep in Mara

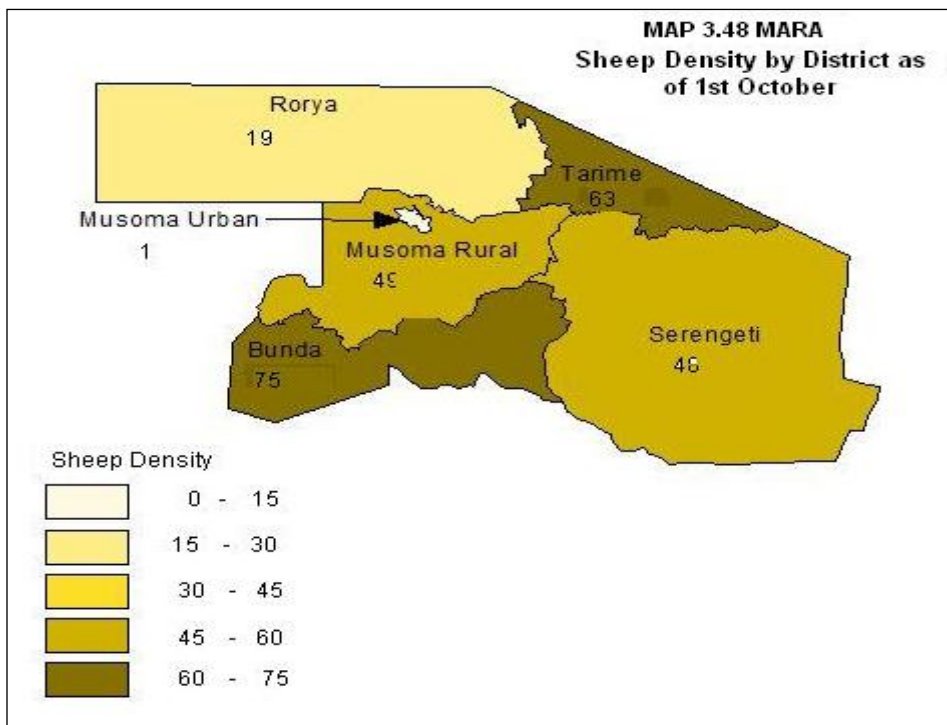
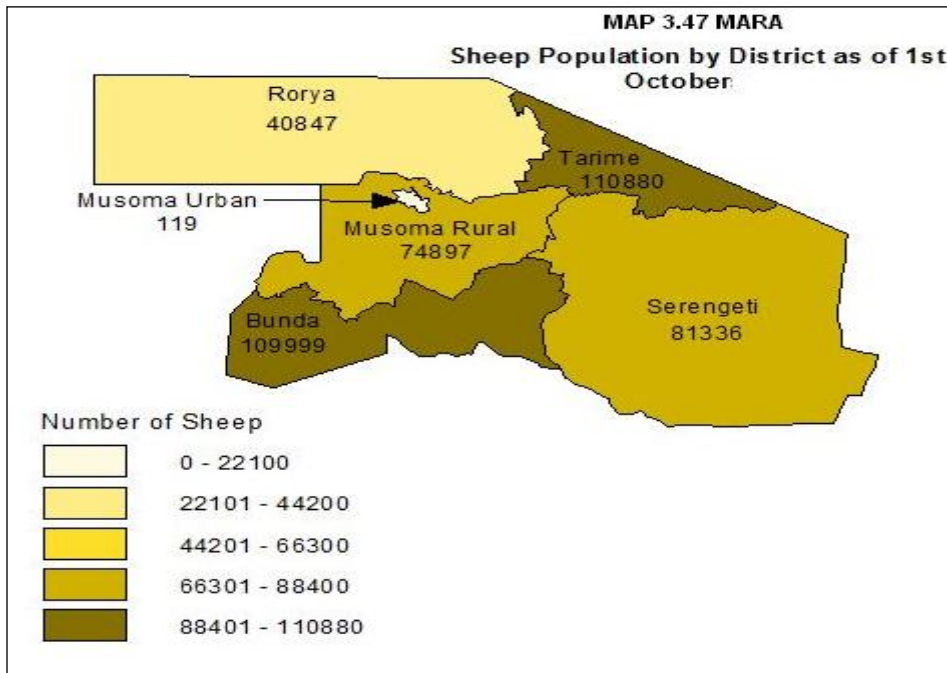


region) followed by Bunda (109,999 sheep, 26.3%), Serengeti (81,336 sheep, 19.5%), Musoma Rural (74,897 sheep, 17.9%) and Rorya (40,847 sheep, 9.8%). Musoma Urban district had the least number of sheep (119 sheep, (0.03%)) (Chart 3.83 and Map 3.47). However, Bunda district had the highest density of sheep in the region (75 head per square km) (Map 3.48). Sheep rearing was dominated by indigenous breeds that constituted 100 percent of all sheep kept in the region. Improved breeds were not recorded in the region in the census year.



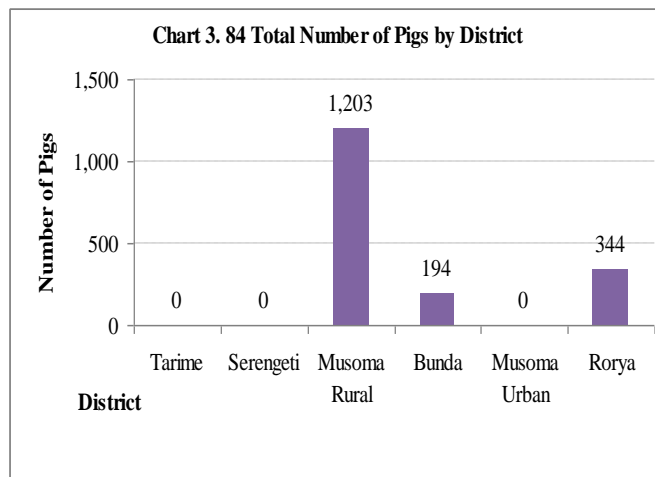
Sheep Population Trend

The overall annual growth rate of the sheep population for the five year period from 2003 to 2008 was 16.6 percent which is equivalent to the increase of sheep population from 194,073 in 2003 to 418,077 sheep in 2008.



3.10.4 Pig Production

Pig rearing is the least important livestock keeping activity in the region after cattle, goats and sheep. The region ranks 21st out of 21 Mainland regions and had 0.1 percent of the total pigs on the Mainland. The number of pig-rearing agricultural households in Mara region was 419 (0.2% of the total agricultural households in the region) rearing 1,741 pigs. This gives an average of 4 pigs per pig-rearing household. The district with the largest number of pigs was Musoma Rural with 1,203 pigs (69.1% of the total pig population in the region), followed by Rorya (344 pigs, 19.8%) and Bunda (194 pigs, 11.1%). There was no pig rearing in the rest of the districts (Chart 3.84).



Pig Population Trend

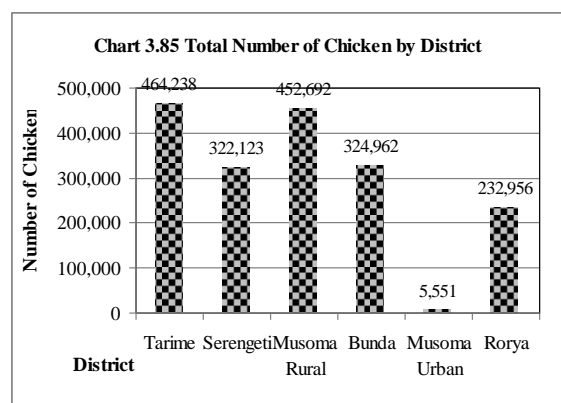
The overall annual growth rate of the pig population for the five years period from 2003 to 2008 was -38.9 percent. During this period, the pig population decreased from 20,409 in 2003 to 1,741 in 2008.

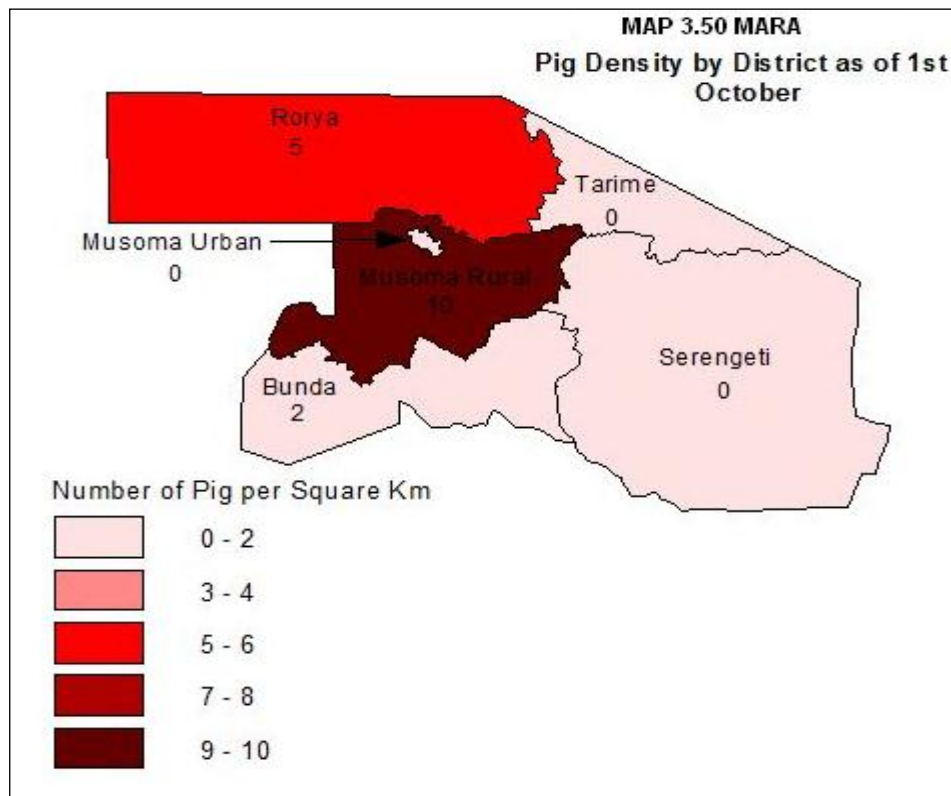
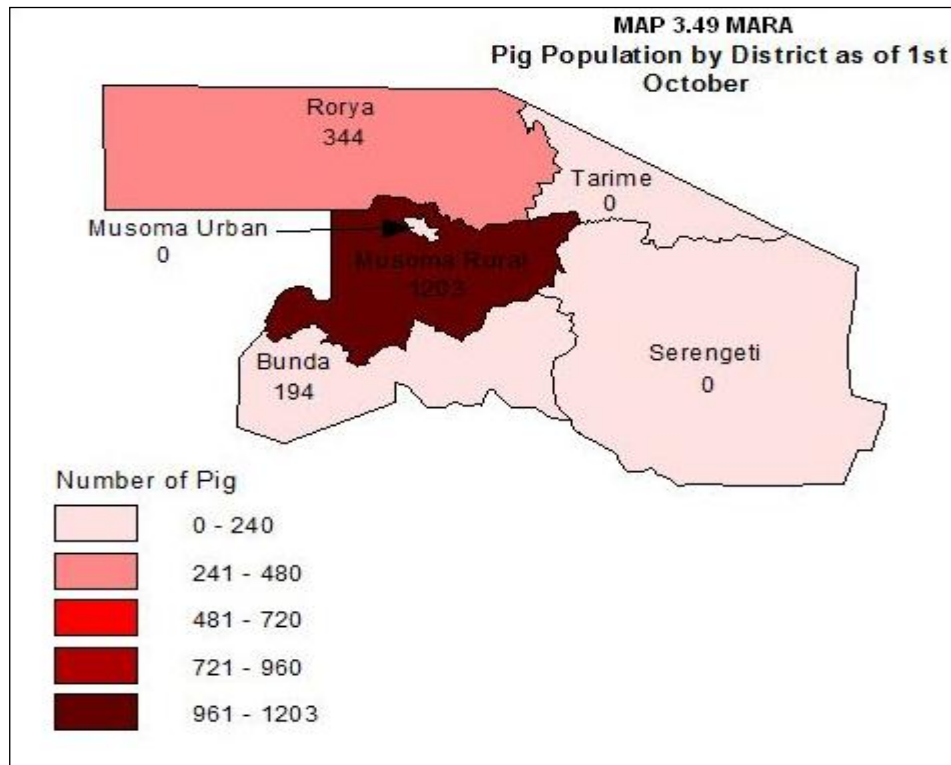
3.10.5 Chicken Production

The poultry sector in Mara region was dominated by chicken production. The region contributed 4.2 percent to the total chicken population, in Tanzania Mainland.

Chicken Population

The number of households keeping chicken was 164,618 raising about 1,802,523 chicken. This gives an average of 11 chicken per chicken-rearing household. In terms of total number of chicken in the country, Mara region was ranked 10th out of the 21 Mainland regions. The district with the largest number of chicken was Tarime with 464,238 chicken (25.8% of the total chicken in the region), followed by Musoma Rural (452,692 chicken, 25.1%), Bunda (324,962 chicken, 18%), Serengeti (322,123 chicken, 17.9%), and Rorya (232,956 chicken, 12.9%). Musoma Urban district had the smallest number of chicken (5,551 chicken, 0.3%) (Chart 3.85 and Map 51). However, Musoma Rural district had the highest chicken density in the region (5,187 chicken per square km) (Map 3.52).





Chicken Population Trend

The overall annual chicken population growth rate during the five-year period from 2003 to 2008 was 3.5 percent. Almost 100 percent of chicken in Mara region were of indigenous breed. The dominance of indigenous breed makes the population trend for the indigenous chicken more-or-less the same as that of the total chicken in the region.

Chicken Flock Size

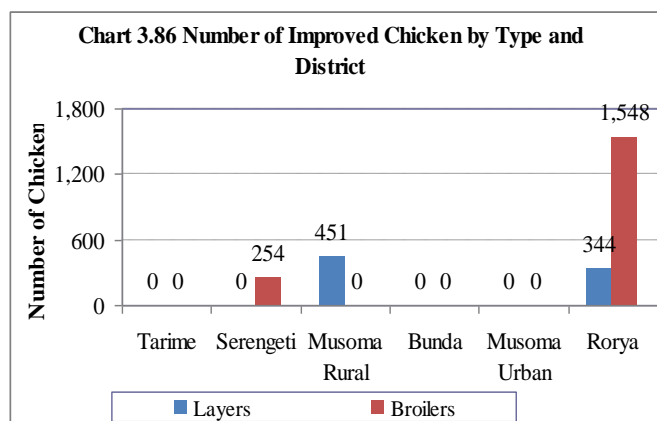
The results indicate that about 96 percent of all chicken-rearing households kept 1-49 chicken with an average of 11 chicken per chicken rearing household. About 3 percent of holders were reported to be keeping the flock size of 50 to 99 chicken with an average of 55 chicken per household. Only 1 percent of households kept the flock size of more than 100 chicken at an average of 200 chicken per household (Table 3.15).

Table 3.15 Number of Households Keeping Chicken and Average Number of Chicken per Household by Flock Size

Herd Size	Number of household	Number of chicken	%	Number of chicken per household
1 - 49	163,157	1,726,253	96	11
50 - 99	1,041	56,904	3	55
100 - 299	97	19,366	1	200
Total	164,295	1,802,523	100	11

Improved Chicken (layers and broilers)

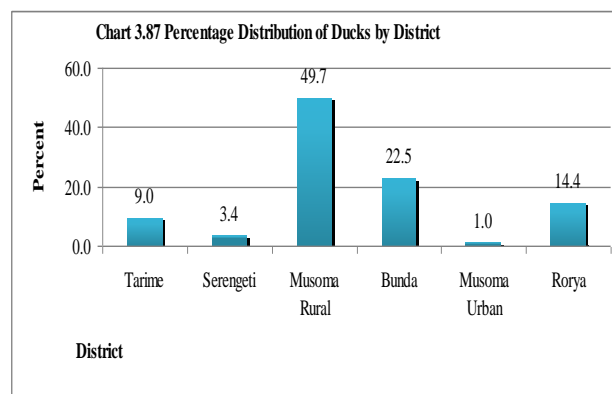
The layer population in Mara Region decreased at an overall annual rate of -44.1 percent over the period of five years from 14,561 in 2003 to 795 in 2008. The number of improved chicken (broiler) was most significant in Rorya and Serengeti. Layers were noticeable in Musoma Rural district followed by Rorya district (Chart 3.86). Improved chicken were not reported in the remaining districts.



The overall annual growth rate for broilers during the five-year period from 2003 was 8.8 percent during which the population increased from 1,183 to 1,802 in 2008.

3.10.6 Other Livestock

There were 83,572 ducks, 6,658 guine pigs, 3,848 turkeys, 1,203 rabbits 10,191 donkeys and 130,004 dogs raised by rural agricultural households in Mara region Table 3.16 indicates the number of other livestock kept in each district. The largest number of ducks in the region was found in Musoma Rural district with 41,509 ducks (49.7% of all ducks in the region), followed by Bunda (18,785 ducks, 22.5%), Rorya (12,039 ducks, 14.4%), Tarime (7,560 ducks, 9%), Serengeti (2,881 ducks, 3.4%), and Musoma Urban (798 ducks, 1%) (Chart 3.87).



Guine pigs were reported in Tarime and Musoma Rural districts only. Similarly, turkeys were reported in Tarime and Serengeti districts only. Rabbits were reported in Musoma Rural only. The highest number of donkeys was found in Tarime district (5,040 donkeys, 49.5%), followed by Musoma Rural district (26.6% of the total donkey in Mara region). Dogs were widely reared in Tarime, Serengeti, and Musoma Rural districts (29.8, 23.3 and 21.3 percents respectively of the total dogs raised in the region) (Table 3.16).

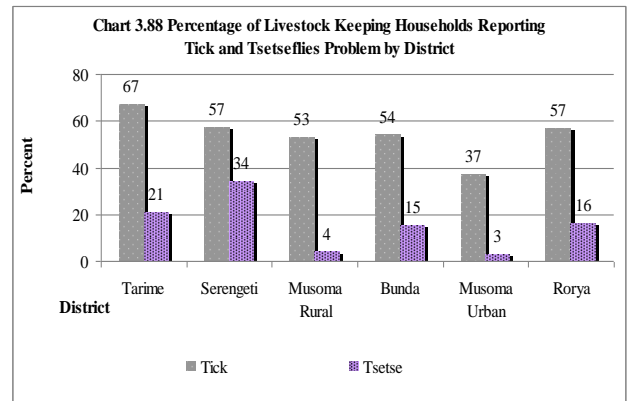
Table 3.16 Number and Percentage Distribution of Other Livestock by Type and District as of 1st October 2008

District	Ducks	%	Guinea pigs	%	Turkeys	%	Rabbits	%	Donkeys	%	Dogs	%
Tarime	7,560	9	3,500	52.6	840	21.8	0	0	5,040	49.5	38,780	29.8
Serengeti	2,881	3.4	0	0	0	0	0	0	508	5	30,331	23.3
Musoma Rural	41,509	49.7	3,158	47.4	3,008	78.2	1,203	100	2,707	26.6	27,673	21.3
Bunda	18,785	22.5	0	0	0	0	0	0	1,162	11.4	20,528	15.8
Musoma Urban	798	1	0	0	0	0	0	0	0	0	51	0
Rorya	12,039	14.4	0	0	0	0	0	0	774	7.6	12,641	9.7
Total	83,572	100	6,658	100	3,848	100	1,203	100	10,191	100	130,004	100

3.10.7 Pests and Parasites Incidences and Control

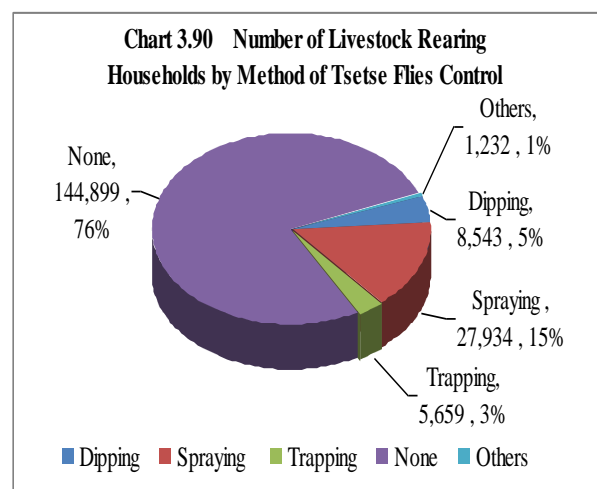
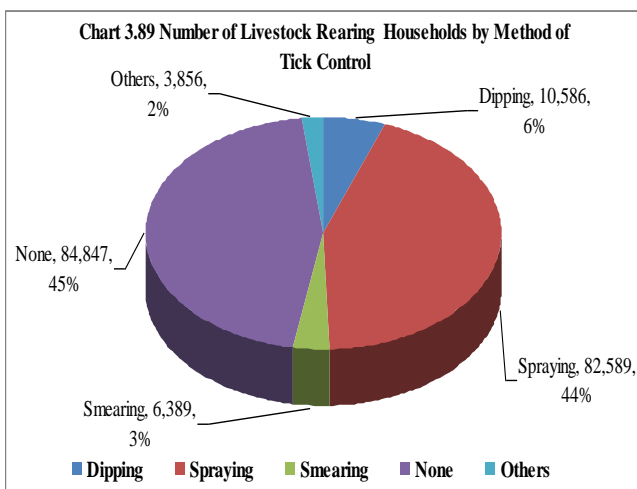
3.10.7.1 Tick and Tsetsefly Problems

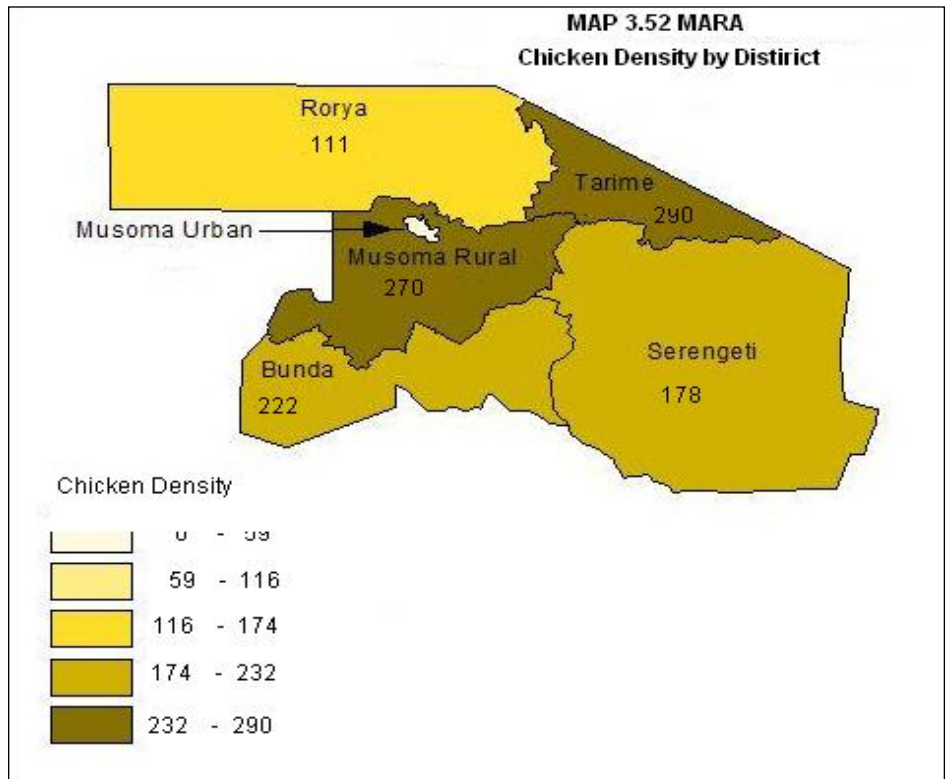
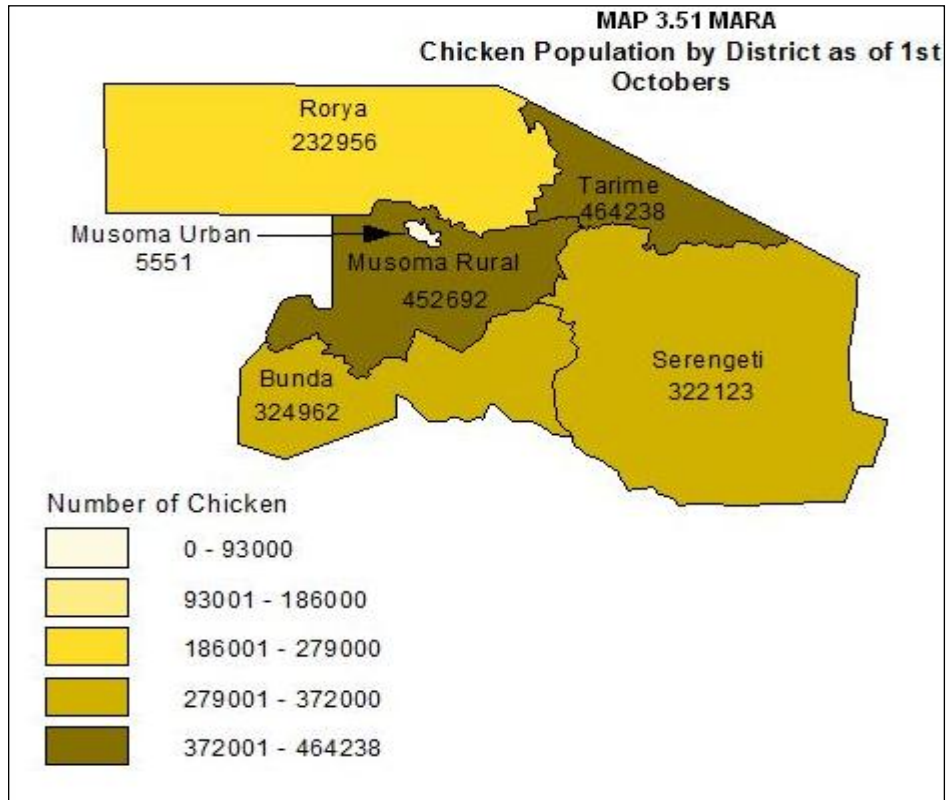
The results indicate that 58 percent and 16 percent of the total livestock-keeping households reported to have encountered ticks and tsetse fly problems respectively. The census results show that there was a predominance of tick related diseases over tsetse related diseases. While incidences of tick problems were highest in Tarime district and lowest in Musoma Urban district, tsetse flies incidences were highest in Serengeti but lowest in Musoma Urban district (Chart 3.88, Map 3.53).



3.10.7.2 Tick and Tsetsefly Control Methods

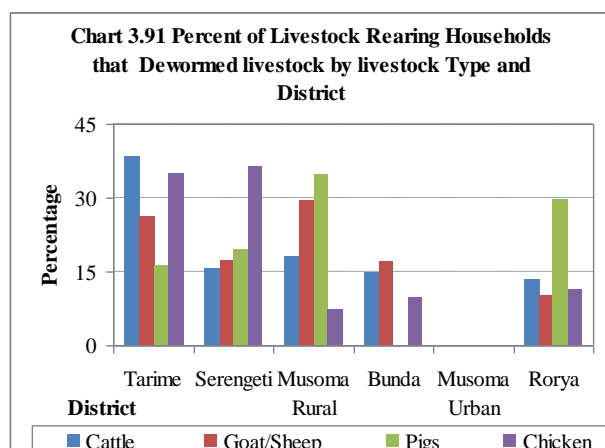
The most common method of tick control was spraying which was used by 44 percent of all livestock-rearing households having tick problems. Other methods used were dipping (6%), smearing (3%) and other traditional methods like hand picking (2%). However, 45.1 percent of livestock-keeping households did not use any method (Chart 3.89). This was an alarming number given the predominance of tick problem incidences in the region. The most common method used to control tsetse flies was spraying which was practiced by 15 percent of livestock rearing households. This was followed by dipping (5%) and trapping (3%) and other methods (1%). However, 76 percent of the livestock rearing households did not use any of the three aforementioned methods. This is a staggering number given the prevalence rate of the disease in the region (Chart 3.90).





De-worming

Livestock rearing households that de-wormed their animals were 87,867 (46% of the total livestock rearing households in Mara region). The percentage of cattle keeping households that dewormed cattle was 76 percent, goats/sheep (64%), chicken (19%) and pig (1%). The district with the highest number of households that de-wormed cattle was Tarime (38% of total households that de-wormed cattle), followed by Musoma Rural (18%), Serengeti (16%), Bunda (15%), Rorya (13%) (Chart 3.91).



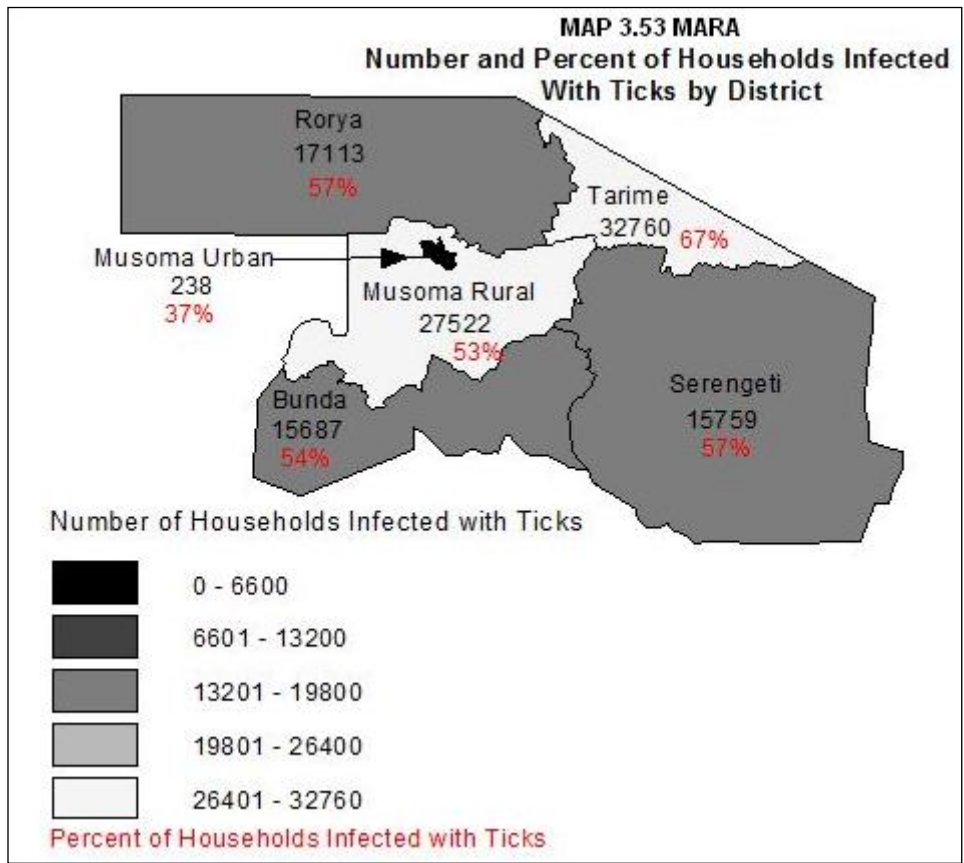
3.10.8 Access to Livestock Services

Access to Livestock Extension Services

The total number of households that received livestock advice was 108,121, representing 57 percent of the total livestock rearing households in the region. The main livestock extension provider was the government which provided service to about 90.4 percent of all households receiving livestock extension services. This was followed by NGOs/development projects (17.2%), Radio/Television/Newspaper (15.8%), neighbour (7.6%), cooperatives (3.6%) and large scale farmers (1%).

3.10.9 Fish Farming

Fish farming was not reported in Mara region in the 2007/08 census year.

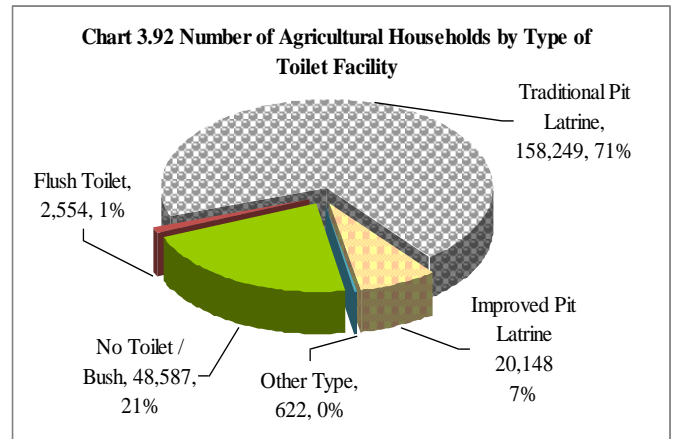


3.11 POVERTY INDICATORS

The agricultural census collected data on poverty for the purpose of providing a base for tracking progress in poverty reduction strategies undertaken by the government.

3.11.1 Type of Toilets

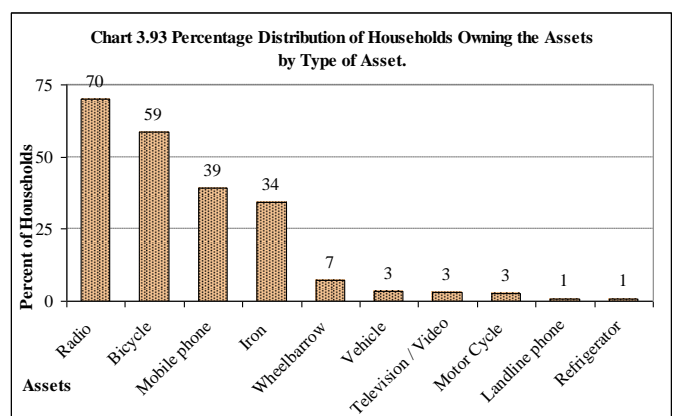
A large number of rural agricultural households in Mara region used traditional pit latrines (158,249 households, 71% of all rural agricultural households); 20,148 households (7%) used improved pit latrines; 2,554 households (1%) used flush toilets, and 622 household (0.2%) used other toilets facilities. However, 48,587 households (21.0%) in the region had no toilet facilities (Chart 3.92).



The distribution of the households without toilets within the region indicates that the highest (33% of the total households in the district) percent of the agricultural households in the region was found in Musoma Urban, followed by Rorya district (30%). The percentages of households without toilets in the other districts in their order of importance were as follows: Tarime (22%), Serengeti (22%), Musoma Rural (18%) and Bunda (18%) (Map 3.54).

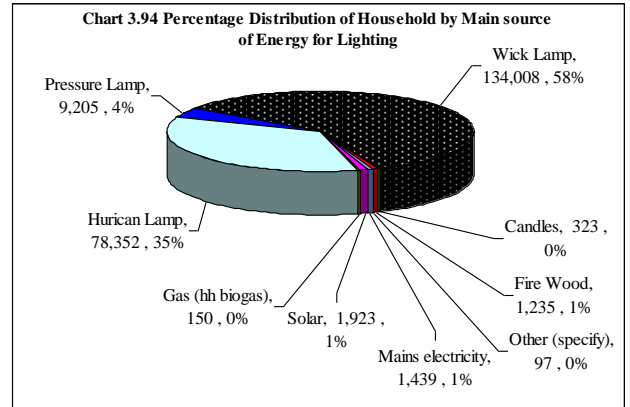
3.11.2 Household's Assets

Radio were owned by most rural agricultural households in Mara region with 158,429 households (70% of the agriculture households in the region) owning them, followed by those owning bicycle (132,810 households, 59%), Mobile phones (89,266 households, 39%), and iron (77,277 households, 34%), The remaining assets had less 30 percent. (Chart 3.93).



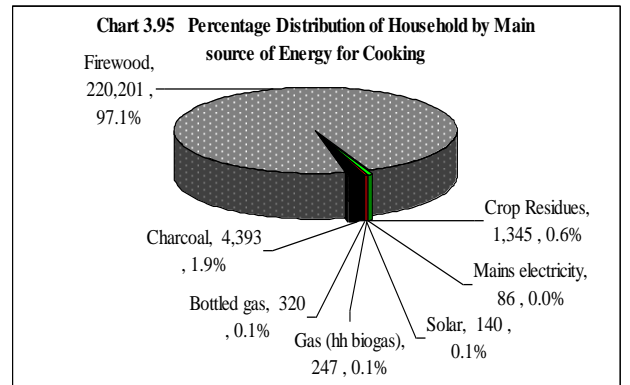
3.11.3 Sources of Energy for Lighting

Wick lamp was the most common source of energy for lighting in the region, with 58 percent of the total rural households followed by hurricane lamp (35%), pressure lamp (4%), mains electricity (1%), and solar (1%). The remaining sources were minor and accounted for less than 1 percent (Chart 3.94).



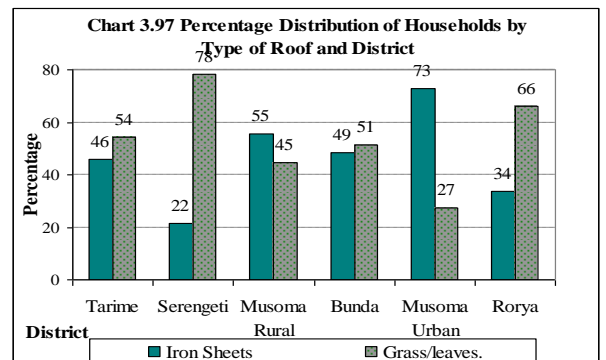
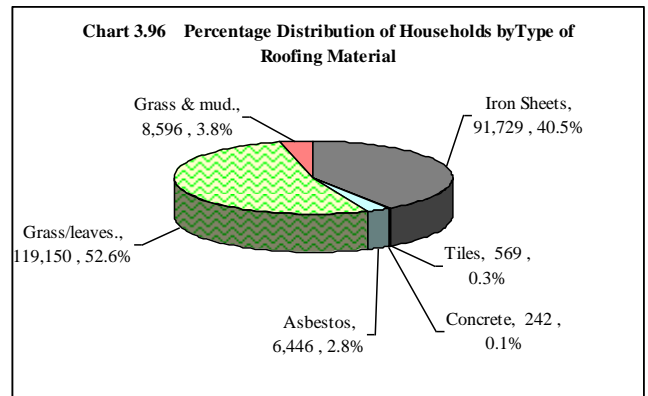
3.11.4 Sources of Energy for Cooking

The most prevalent source of energy for cooking in Mara region was firewood, which was used by 97.1 percent of all agricultural households in the region. This is followed by charcoal (1.9%) and Crop residues (0.6%). The rest of energy sources accounted for less than 0.5 percent. These were bottled gas (0.1%), solar (0.1%), and Main Electricity (0.04%) (Chart 3.95).



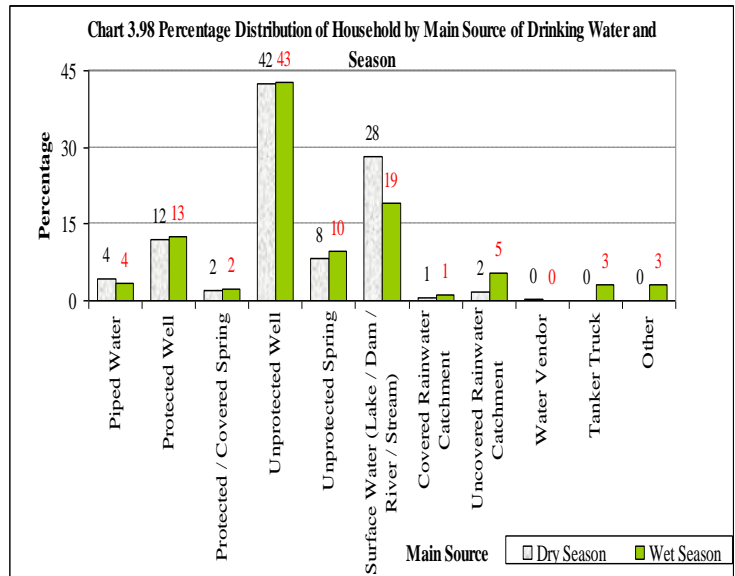
3.11.5 Roofing Materials

The most common material used for roofing the main dwelling was grass and leaves and it was used by 52.6 percent of the rural agricultural households in Mara region. This was followed by iron sheets (40.5%), grass and mud (3.8%), asbestos (2.8%), tiles (0.3%) and concrete (0.1%), (Chart 3.96). Serengeti district had the highest percentage of households with grass/leaves roofing material in Mara region (78%), followed by Rorya (66%), Tarime (54%), Bunda (51%), Musoma Rural (45%), and Musoma Urban (27%). On the other hand, Musoma Urban district had the highest (73%) percentage of households with iron sheet as a roofing material for the main building, followed by Musoma Rural (55%), Bunda (49%), Tarime (46%), Rorya (34%), and Serengeti (22%) (Chart 3.97 and Map 3.57).



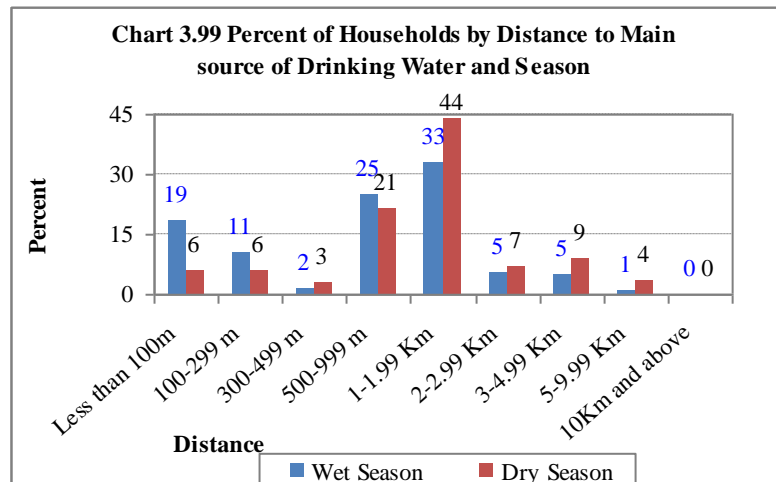
3.11.6 Access to Drinking Water

The main source of drinking water for rural agricultural households in Mara region was unprotected wells (43% of households use unprotected wells during the wet season and 42 percent of household during the dry season). This is followed by surface water (Lake / Dam / River / Stream) (19% of household during wet season and 28 percent in the dry season), protected wells (13% of households in the wet season and 12 percent of households in the dry season



). The remaining sources were minor for the two seasons accounted for less than ten percent each. (Chart 3.98).

About 57 percent of the rural agricultural households in Mara region obtained drinking water within a distance of less than one kilometer during wet season compared to 36 percent of the households during the dry season. However, 33 percent of the agricultural households obtained



drinking water from a distance of one to two kilometers during the wet season compared to 44 percent of households in the dry season. The most common distance from the source of drinking water was between 1 and 2 km (Chart 3.99).

3.11.7 Food Consumption Pattern

Number of Meals per Day

The majority of households in Mara region normally had 2 meals per day (60 percent of the agricultural households in the region). This was followed by 3 meals per day (37 percent) and 1 meal per day (3 percent). No agricultural households was reported to have 4 meals per day (Chart 3.100). Tarime district had the largest percentage of households having one meal per day as well as the highest percentage of households having 3 meals per day. Musoma Rural had the highest percentage of households having 2 meals per day, while Serengeti had the second highest percentage of households having 3 meals per day (Table 3.17 and Map 3.56).

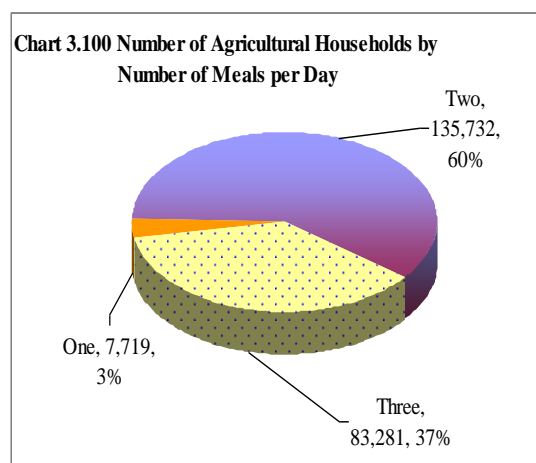


Table 3.17 Number of Agricultural Households by Number of Meals the Household Normally Have per Day and District

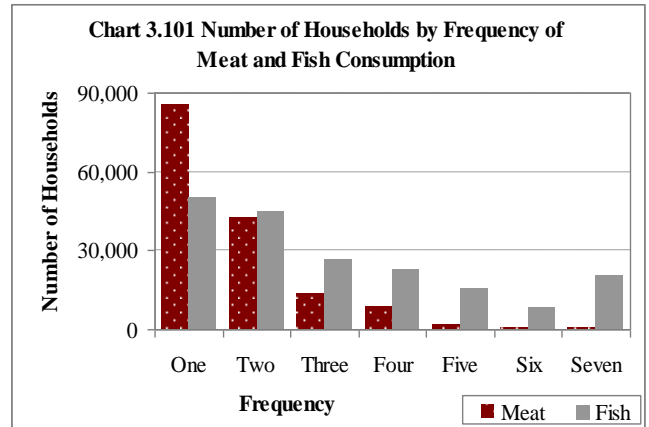
District	Number of Meals per Day						Total	%
	One	%	Two	%	Three	%		
Tarime	5,740	10	21,980	39	28,980	51	56,700	100
Serengeti	339	1	17,030	50	16,945	49	34,314	100
Musoma Rural	752	1	48,428	80	11,731	19	60,910	100
Bunda	97	0	29,727	76	9,393	24	39,216	100
Musoma Urban	17	2	509	67	238	31	764	100
Rorya	774	2	18,059	52	15,995	46	34,827	100
Total	7,719	3	135,732	60	83,281	37	226,731	100

Meat Consumption Frequency

The number of agricultural households that consumed meat during the week preceding the census was 153,102 (67.5% of the agricultural households in Mara region), with 85,667 households (56 % of the households that consumed meat) consumed meat only once during the respective week. This was followed by households that consumed meat twice during the week (42,682 households, 28%). Very few households had meat three times or more during the respective week (1.8%). About 73,629 agricultural households (32.5% of the agricultural households in Mara region) did not eat meat during the week preceding the census (Chart 3.101 and Map 3.57).

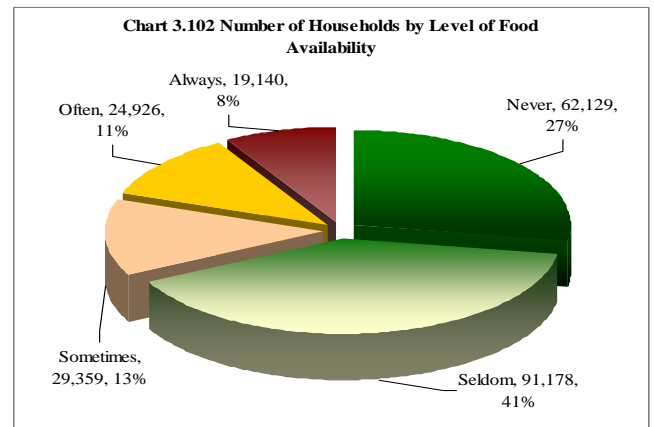
Fish Consumption Frequency

The number of agricultural households that consumed fish during the week preceding the census was 187,200 (82.5% of the total agricultural households in Mara region), with 49,913 households (27% of those who consumed fish) consuming fish once during the respective week. This was followed by those who had fish twice (24%) and three times (14%). In general, the number of households that consumed four or more times during the week in Mara region was 65,561 (35% of the agricultural households that ate fish in the region during the respective period). About 17.4 percent of the agricultural households in Mara region did not eat fish during the week preceding the census (Chart 3.101)

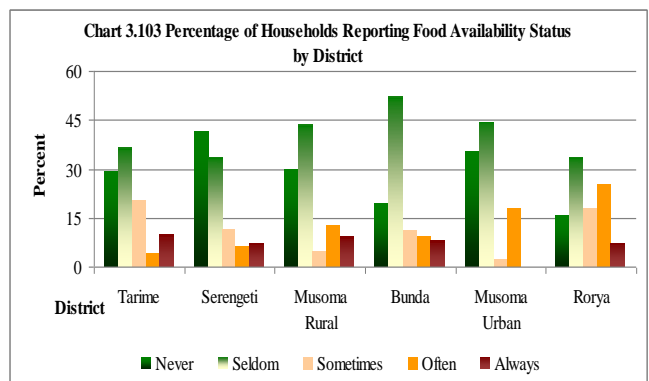


3.11.8 Food Security

In Mara region, 91,178 households (41% of the total agricultural households in the region) said they seldom experienced problems in satisfying the household food requirement, whilst 29,359 households (13%) said they sometimes experience problems. The number of households that often experienced problems was 24,926 households (11%), however 19,140 households (8%) said they always had problems in satisfying the household food requirement. About 62,129 agricultural households (27%) said they never experience any food problems (Chart 3.102).

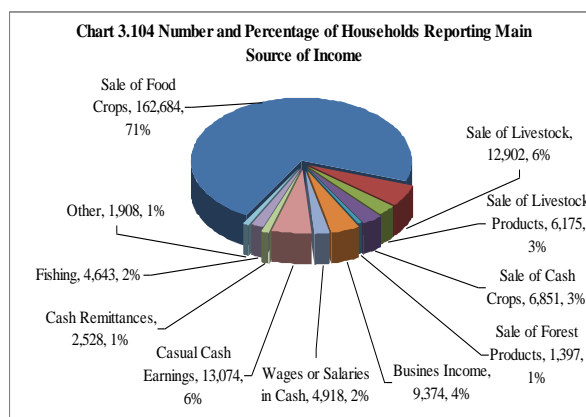


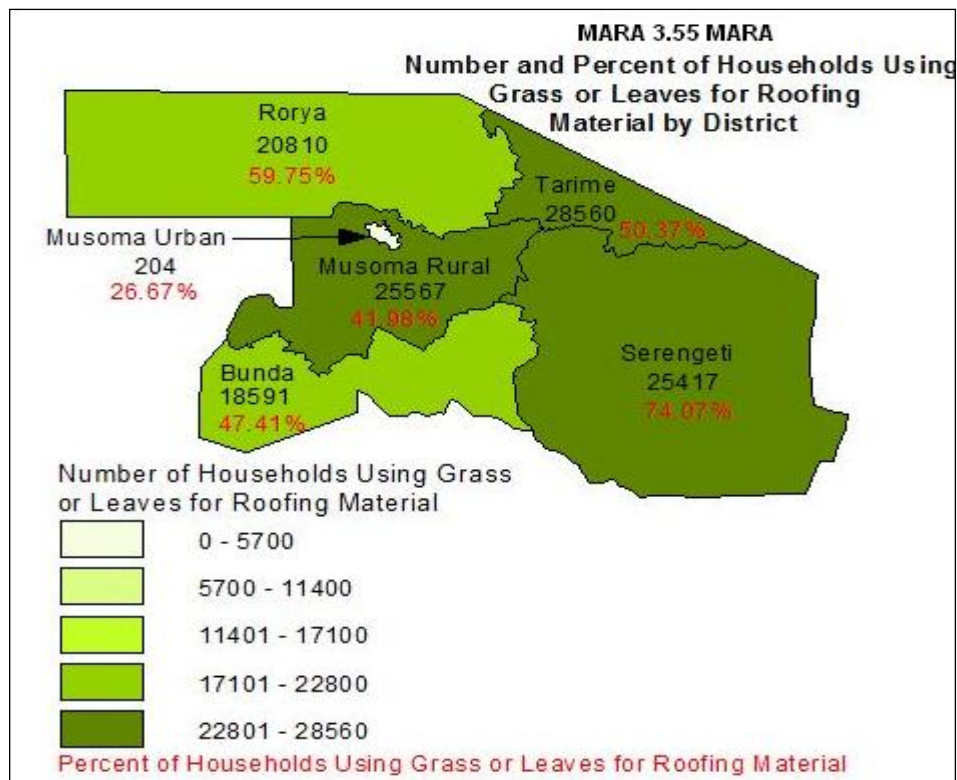
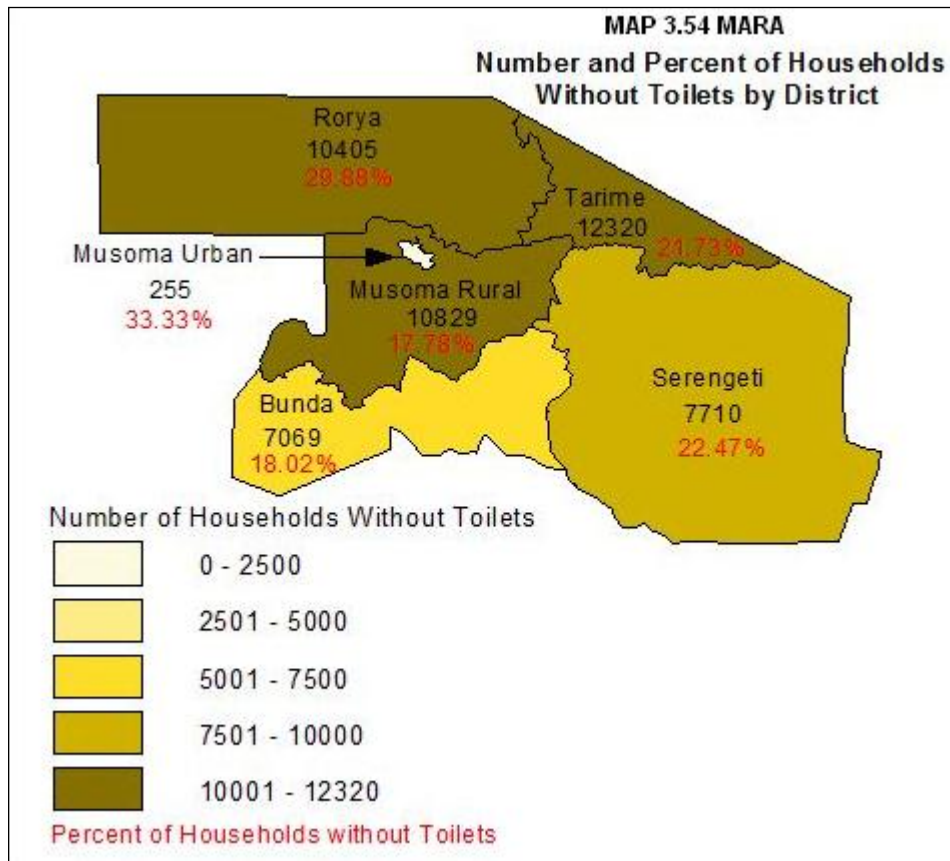
Rorya district has the highest percent of households that often have problems in satisfying their household food requirements (25% of the agricultural households). The percentage of households often having food problems is also higher in Musoma Urban and Musoma Rural districts (18% and 13% respectively). Tarime district had the lowest percentage of households that often face food problems (4% of the agricultural households) followed by Serengeti (6%) Bunda (9%) (Chart 3.103). However, no household was reported to have always food problems in Musoma Urban.

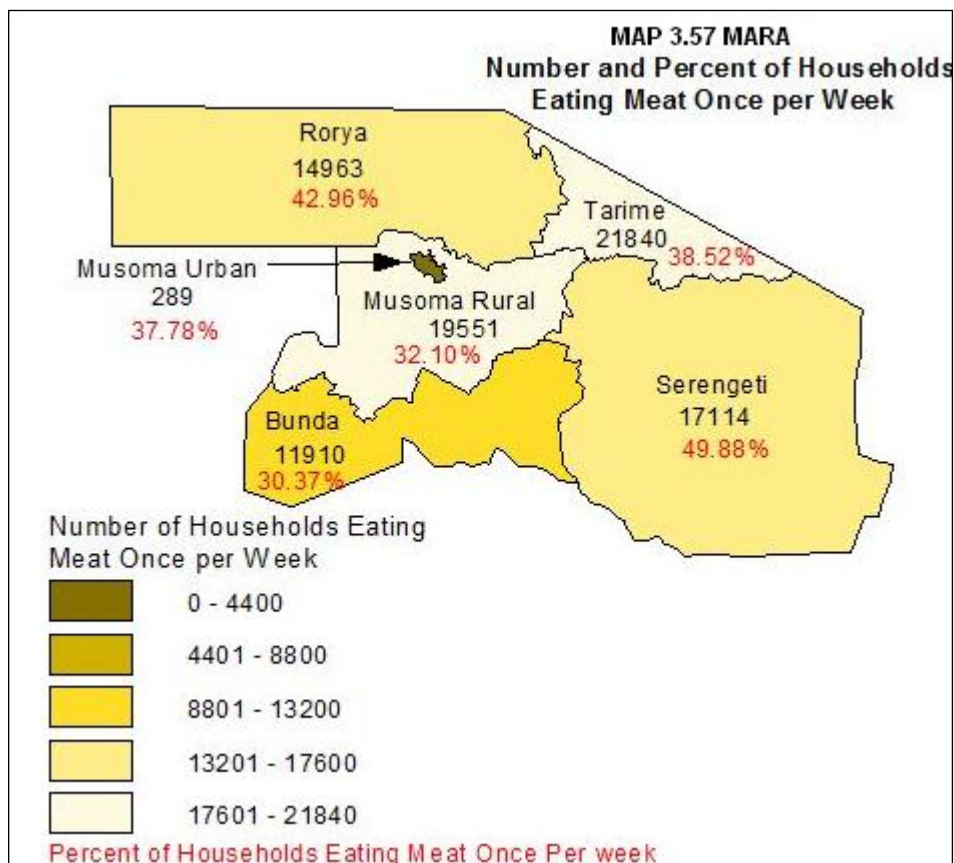
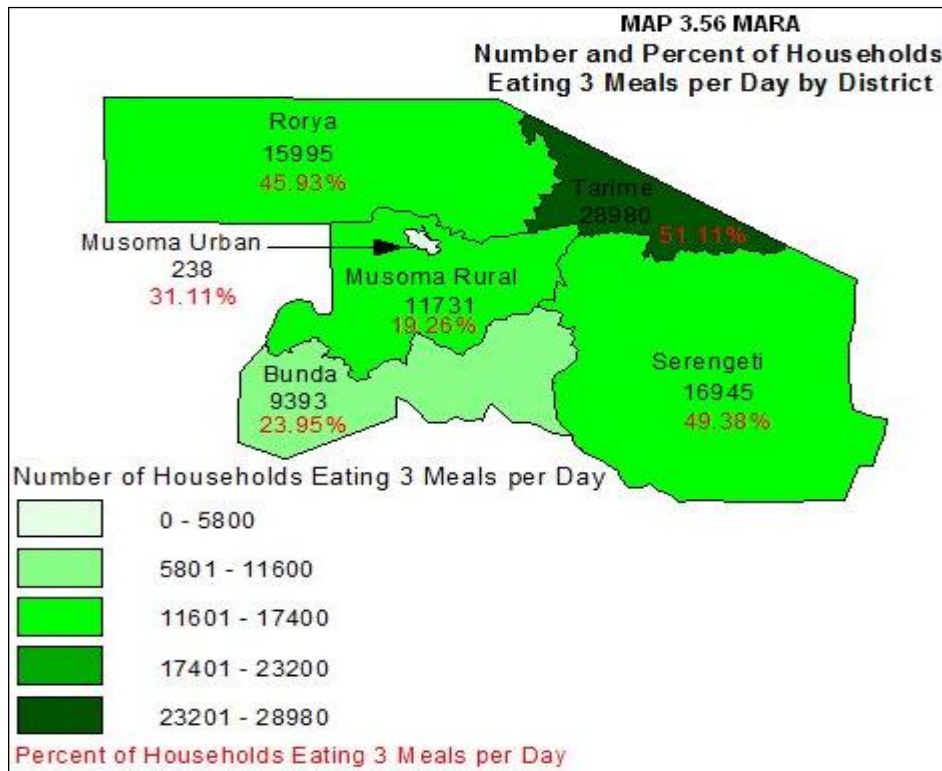


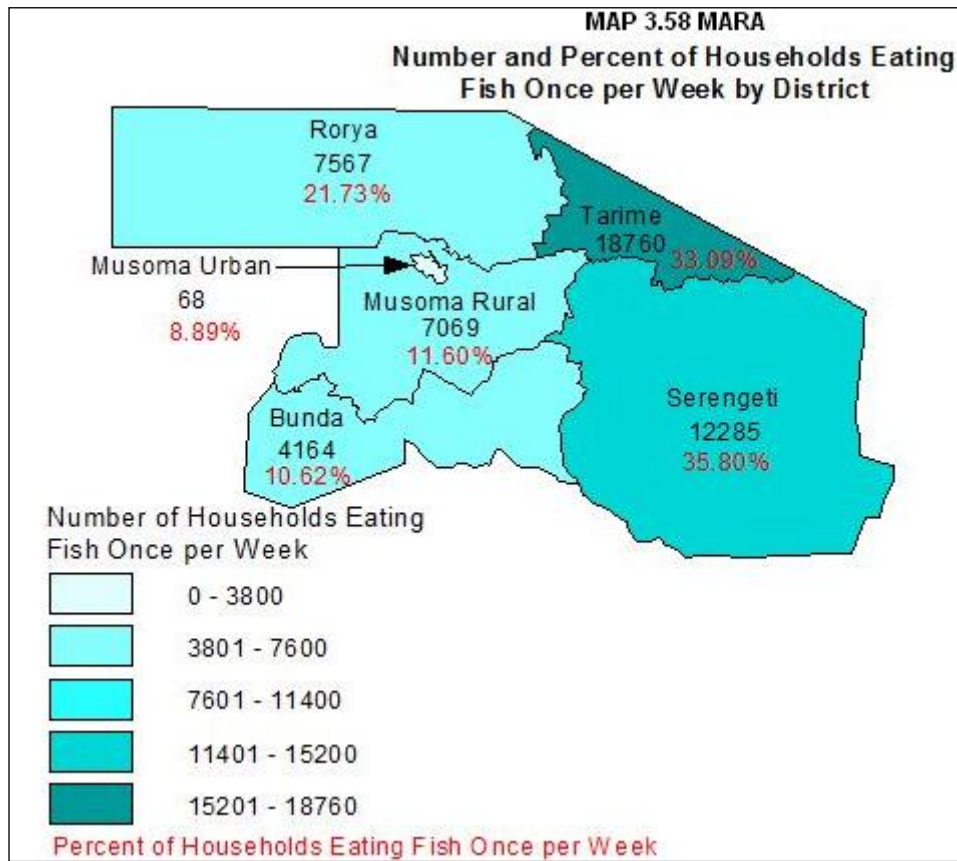
3.11.9 Main Sources of Cash Income

The main source of cash income of the households in Mara region was from selling food crops (71 percent of smallholder households), followed by sale of livestock and other casual cash earnings with 6 percent each, businesses (4%), sale of cash crops and sale of livestock products accounted for 3 percent each. Others include fishing and wages or salaries which had 2 percent each, cash remittance and sale of forest product each accounted for 1 percent. (Chart 3.104).









4 MARA PROFILES

4.1 DISTRICT PROFILES

The following district profiles highlights the characteristics of each district and compares them in relation to population, main crops and livestock, production and productivity, access to services and resources and levels of poverty.

4.1.1 Tarime

Tarime district had the largest number of households in the region and it had the second highest percent of households involved in smallholder agriculture in the region. Most smallholders were involved in crop and livestock production, followed by crop production only. Households involved in livestock keeping only and pastoralists were not found in the district.

The most important livelihood activity for smallholder households in Tarime district was annual crop farming followed by livestock keeping and fishing. However, the district had the second lowest percent of households with off farm activities and the lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Tarime had the lowest percent of female headed households (18%) and it had the second lowest average age of the household head (46 years). The district had the second lowest average household size in Mara region (5.6 members per household). Tarime had the highest (84.5%) literacy rate among smallholder household members and second highest (80%) literacy rate for the heads of household in the region.

It had the second lowest utilized land area per household (1.3 ha) and the allocated area was almost fully utilized (83% land utilization) indicating an impending high level of land pressure. The district had the largest total planted area and the second highest area per household (1.5 ha).

The district was the largest maize and sorghum production in the region with a planted area of 50,907 and 18,164 hectares respectively, however the planted area of maize per maize growing household was the second lowest (0.6 ha) in the region. It was the third lowest paddy production with a planted area of 510 ha (9% of the total planted area with paddy in the region). The district was the largest producer (4,403 tonnes) of finger millet in the region and had the second lowest area planted with cassava. The district was the largest producer of sweet potatoes with a planted

area of 6,374 ha accounting for 35.2 percent of the total area planted with sweet potatoes in the region. Also the district had the largest area (5,633 ha) planted with beans in the region. Oilseed crops were not important in Tarime, except for groundnuts and soya beans which had a largest (666 ha and 85 ha respectively) area planted compared to other districts in the region. Vegetable production was important in the district. It had the largest planted area with spinach (89.2% of the total area planted with spinach in the region), onions (55.1%), cabbages (35%) and tomatoes (24.5%).

Tarime had the second lowest planted area with permanent crops which was dominated by banana (1,228 ha), followed by coffee (1,256 ha). Other permanent crops were grown in small quantities.

Tarime had the largest (22,269 ha) area planted with improved seed and the largest (11,855 ha) area planted with fertilizers (farm yard manure, compost and inorganic fertiliser) in Mara region. However, most of the applied fertilizer was organic fertilizer. Compared to other districts in the region, Tarime district had the third lowest level of insecticide/fungicide use (627 ha). It had the largest area with irrigation compared to other districts having 3,472 ha of irrigated land. The most common sources of water for irrigation were rivers and dams using hand buckets.

The most common method of crop storage was locally made traditional structures followed by sacks/open drums and the proportion of households storing crops in the district was high. The district had the largest number of households selling crops, however for those who sell, the main marketing problem was low price for agricultural produce. The district had the second highest number of households reported to have accessed agricultural credit.

The district had the second highest (70.9%) proportion of households receiving extension services in the region and almost all of this was from the government.

The number of households with erosion control and water harvesting structures in Tarime district was high compared to other districts and most of them were terraces and water harvesting bunds, however it also had the third largest number of erosion control bunds in the region.

The district had the third largest number of cattle (315,979), goats (185,499) and largest number of sheep (110,880) in the region and they were almost all indigenous. Tarime also had the highest number of chicken and no data on pigs were recorded. The population of chicken was dominated by

indigenous chicken. It had the third lowest number of ducks, second largest number of turkeys, no rabbits were recorded and largest number of donkeys compared to other districts. It had the largest number of households reporting tsetse and tick problems in the region and it had the largest number of households de-worming livestock. The use of draft animals in the district was most prominent. Fish farming was not practiced in Tarime district.

Tarime district had the third highest (22%) percent of households with no toilet facilities and it had one of the highest (78%) percent of households owning radios, third lowest (57%) percent of households owning bicycles and second highest (38%) percent of households owning irons. The most common (58%) source of energy for lighting was the wick lamp, followed by hurricane lamp (34%) and practically all households used firewood for cooking (98%). The district had third highest percent of households with grass roofs (50%) and 42 percent of households having iron sheet roofs. The most common source of drinking water was unprotected wells. It had the highest percent of households having three meal per day compared to other districts. The district had the second lowest (18%) percent of households that did not eat meat during the week prior to enumeration, however it had the second highest percent of households that did not eat fish during that period. Most households seldom had problems with food satisfaction.

4.1.2 Serengeti

Serengeti was the second district with the least number of households in the region and it was the district with the highest percent of households involved in smallholder agriculture in the region. Most smallholders were involved in crop production only, followed by crop and livestock production and livestock keeping only. No pastoralists were found in the district.

The most important livelihood activity for smallholder households in Serengeti district was annual crop farming, followed by livestock keeping and livestock pastoralist. However, the district had the lowest (31.9%) percentage of households with off-farm activities and the third lowest percentage of households with more than one member with off-farm income. Compared to other districts in the region, Serengeti had the second lowest percentage of female headed households (21%) and it had the lowest average age of the household head in the region (43 years) The district had the third highest average household size in the region (6.3 members per household). Serengeti had a comparatively low literacy rate (76.7%) among smallholder household members, however it had the highest literacy rate (81%) for the head of households.

It had the largest utilized land area per household (2.6 ha) and the lowest proportion of the allocated area was utilized (70% land utilization). The district had second highest planted area (62,497) as well as the highest planted area per crop growing household (1.8 ha).

Maize production was second highest in the region with a planted area of 28,597 ha and the planted area per household was also high compared to other district. Bulrush millet production was less important with a planted area of only 274 hectares. The district was the second sorghum producer in the region (23,827 tonnes). While paddy production was less important, it had the second largest planted area (3,902 ha) for finger millet. Serengeti had the third smallest area planted with cassava as well as sweet potatoes. Irish potatoes was not reported. While beans production in the district was moderate, there was no data on the area planted with cowpeas reported. Serengeti district had the second largest groundnuts planted area in Mara region with area planted per groundnut growing household of 0.2 ha. Vegetable production was less important in the district. Though small the district had the second largest planted area (37.5%) with onions and the third largest area planted with tomato (11.3%).

Compared to other districts in the region, Serengeti had a third lowest area with permanent crops which had small areas planted with oranges (34 ha) and mango (3 ha). Other permanent crops were either not grown or were grown in very small quantities.

Serengeti had the second largest planted area with improved seed in Mara region, as well as the third highest proportion of households using improved seeds. The district had the third highest planted area with fertilizers (farm yard manure, compost and inorganic fertiliser), and most of this was organic fertilizer. Compared to other districts in the region, Serengeti district had a second highest fungicide/insecticide use in the region. It had the highest proportion of planted area applied with herbicides in the region. It had the second largest area with irrigation compared to other districts, with 626 ha of irrigated land. The most common sources of water for irrigation were from rivers, lake and canal using hand buckets to obtain water for irrigation.

The most common methods of crop storage in Serengeti district were locally made traditional structures and sacks and/or open drum; however the proportion of households storing crops in the district was the third highest in the region (93.6). Serengeti district had the third highest proportion of households selling crops, however for those who sell, the main marketing problem was low price of agricultural produce. Serengeti was the only district in the region in which only male household

members accessed agricultural credits. The main source of credit was family, friend or relative and from private individual.

A comparatively low number of households received extension services in Serengeti district and 80.6 percent of this was from the government.

Serengeti district had a relatively small number of households with erosion control and water harvesting structures and most of them were erosion control bunds followed by water harvesting bunds and terraces.

The district had the third highest number of cattle in the region (330,765) and they were almost all indigenous. While the district had the third smallest number of goats (166,992) in the region, it also had the third largest number of sheep (81,336). The district was among three districts in the region in which pig rearing was not practiced. Some ducks (2,881 ducks) and donkeys (508 donkeys) were also found in the district. The number of households reporting tick problems in Serengeti district was moderate, however the district had the second largest proportion of households reporting tsetse problems in the region. It also had a third highest proportion of households de-worming livestock. There was no fish farming in Serengeti district.

The percentage of households without toilet facility in Serengeti district was 22 and it was among the districts with the lowest percent of households owning mobile phones (34%), second lowest percent of households owning bicycles (54%) and third highest percentage of households owning televisions/videos (3%) in the region. The most common source of energy for lighting was the wick lamp (68% of total households), followed by hurricane lamp (27%). Practically all households used firewood for cooking (97%). The roofing materials for most of the households in the district were grass and leaves (74%), however the district had the lowest percent of households with iron sheet roofing (20% of households in the district). The most common source of drinking water was unprotected wells (47% of total household in the district). It had the second highest percent of households having three meals per day. The district had the lowest percent of households that did not eat meat (18%) and the highest percentage of households that did not eat fish during the week prior to enumeration (37%), however it had the second lowest proportion of households who were always facing food shortage.

4.1.3 Musoma Rural

Musoma Rural district had the largest number of households in the region and the third highest percent of households involved in smallholder agriculture in the region. Most smallholders were involved in crop production only, followed by those involved in both crop and livestock production and livestock keeping only. No pastoralists were found in the district.

The most important livelihood activity for smallholder households in Musoma Rural district was annual crop farming, followed by fishing and livestock keeping. However, the district had the third highest percent of households with off-farm activities (44.4%) as well as moderate percentage of households with more than one member with off-farm income. Compared to other districts in the region, Musoma Rural had the second highest percentage of female headed households (26%) and it had the highest average age (47 years) of the household head in the region. The district had the second highest average household size (6.9 members per household) in the region. Musoma Rural had a second highest literacy rate among smallholder households (79.6%). However, it had the second highest literacy rate for the heads of household in the region (76%).

It had a slightly lower utilized land area per household (1.5 ha) than the regional average of 1.7 ha and 77.7 percent of the allocated area is currently being utilized. The district had the third lowest planted area and the second lowest area planted per crop growing household in the region (0.8 ha). The district was the third maize producer in the region with a planted area of about 24,166 ha. Sorghum and finger millet planted areas were 12,211 and 792 hectares respectively. The district had the largest area of cassava accounting for 46 percent of the cassava planted area in the region, however Irish potato production was not important. Sweet potato production in the district was relatively important accounting for 27 percent of the total area planted with sweet potatoes in the region. Beans production is important with a planted area of 3,347 ha which was the second largest in the region accounting for 24.4 percent of the total area planted with beans in the region. Oilseed crops were less important in Musoma Rural accounting to only 1.1 percent of the total area planted with groundnuts in the region. Vegetable production was moderate. Though small, the district had the highest percentage of planted area of tomatoes (46.5%) and cabbage (18.8%) in the region. Annual cash crop production was important in the district. Musoma Rural was among three districts producing cotton, it had a lowest planted area of 2,633 hectares in the region. Tobacco production was not reported in the district.

Permanent crops were of little importance however the largest area (44.5% of the total permanent crop planted area in Mara region) was found in the district. The most prominent permanent crop in the district was banana (60 ha), mango (8 ha) and oranges (1 ha). The remaining area together covered other permanent crops.

Musoma Rural district had a third lowest area planted with improved seed in Mara region (5,828 ha). The district also had the second largest proportion of planted area with fertilisers (farm yard manure, compost and inorganic fertiliser), most of this being organic fertilizer. Compared to other districts in the region, Musoma Rural district had the third highest proportion of planted area applied with fungicides as well as insecticides. It had the second largest proportion of planted area applied with herbicides. It had the third largest area with irrigation compared to other districts with 601 ha of irrigated land. The main sources of water for irrigation in the district were from river, canal and borehole using hand buckets to obtain water from the source.

The most common method of crop storage in Musoma Rural was in sacks/open drums and in locally made traditional structures, however the percent of households storing crops in the district was the second lowest in the region (90.1%). The district had second highest percent of households selling crops, however for those who did not sell, the main marketing problem was low price for agricultural produce. The district had the highest percentage of households receiving credit in the region, of which, 86 percent were given to male household members and 14 percent to the female household members. The credits were provided by family, friends or relatives (71.4%), bank (14.3%) and saving and credit societies (14.3%).

The largest number of households (53,391) received extension services in Musoma Rural district and almost all of this was from the government. It had the second highest proportion of households with erosion control and water harvesting facilities and most of them are erosion control bunds and water harvesting bunds.

The district had the second highest number of cattle (388,022) in the region, however it had the lowest number of dairy cattle in the region. Although the district had the largest number of goats in the region (266,802) it had the third lowest number of sheep (74,897). It had the largest number of pig (1,203) and thesecond largest number of chicken in the region (452,692). The district had the largest number of improved chicken dominated by layers. It also had the largest number of ducks (41,509), guinepig (3,158), turkey (3,008), donkey (2,707) and rabbits (1,203) in the region. The

second largest number of households reporting tick problems was found in Musoma Rural district, however the district had the second smallest number of households reporting tsetse problems in the region. The district had the highest proportion of household de-worming livestock. There was no fish farming in the district.

Musoma Rural district had the lowest percent (18%) of households with no toilet facilities. The most common source of energy for lighting was the wick lamp (56%), followed by hurricane lamp (39%). A large proportion of households (97%) used firewood for cooking. The district had the second lowest (42%) percent of households with grass/leaves roofing, however it had second highest percent of households with iron sheets roofing (52%). The main source of drinking water was the unprotected wells (37%) followed by surface water (lake, river dam) (24%). Musoma Rural had the largest proportion of households having two meals per day (80%) and smallest proportion of households having three meals per day (19%). The district had the second lowest percent of households that ate meat three times during the week prior to enumeration, however it had the highest percent of the households that consumed fish two times during that particular week. The district had the highest percent of households that seldom experience food shortage problems.

4.1.4 Bunda

Bunda district had the third largest number of households in the region, however it had the third smallest percentage of households involved in smallholder agriculture in the region. Most smallholders were involved in crop farming only, followed by crop and livestock production. Very few households were involved in livestock keeping only. No pastoralists were found in the district.

The most important livelihood activity for smallholder households in Bunda district was annual crop farming, followed by livestock keeping/herding and fishing. The district had the highest percent of households with off-farm activities (63.2%) and it had the highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Bunda had the third lowest percent of female headed households (23%) and it had the highest average age of the household head (47years). The average household size of 7.0 members per household was one of the highest in the region. The literacy rate among smallholder households in Bunda was the second lowest compared to other districts in the region. The district had the second highest literacy rate for the heads of households (79%).

It had the second largest utilized land area per household (2.1 ha) and 77.9 percent of the allocated area was being utilized. The district had the third largest total planted area in the region and the second largest average area planted per household (1.5 ha) in the region. However, the district had the highest planted area per household in the long rainy season (1.2 ha) and second largest area planted per household during short season (1.1 ha).

Maize production with a planted area of 23,053 ha was second lowest, however the planted area per household was the second largest in the region. Finger millet production with a planted area of 2,289 hectares was third important in terms of planted area in the region, however, the district had the second lowest planted area of sorghum (11,769 ha). The district had the second largest area planted with paddy in the region, however it had a second largest planted area of cassava (20,589 ha) and the third largest planted area for sweet potatoes (3,585 ha). It also had the largest area planted with chickpeas (608 ha) and third lowest planted area with beans (1,467 ha). Oilseed crops were of moderate importance in Bunda with the third largest planted area of groundnuts (198 ha) in the region. Vegetable production was not important in the district, however it had the highest percentage of cabbages planted area (42.4% of the area planted with cabbages in the region) compared to other districts in the region. Tomatoes, eggplant, and okra were produced in very small quantities. Bunda district was important for cotton production accounting for 62.8 percent of the total area planted with cotton in the region.

Compared to other districts in the region, Bunda had the second largest area planted with permanent crops which were dominated by sugarcane (95 ha), banana (38 ha) and orange (1 ha).

Bunda had the second highest proportion of area planted with improved seed in Mara region. The use of fertilizer was second lowest compared to other districts and most of it was organic fertilizer. It had a relatively small area applied with inorganic fertilizers. Compared to other districts in the region, Bunda district had the second highest percentage of the planted area in the district with fungicides application herbicide use was not reported in the district. The district had the largest percent of area planted with insecticide use. It had the third lowest area with irrigation with a planted area of 600 ha under irrigation. The sources of water for irrigation were the borehole, rivers, tap water and canal using gravity and motor pump.

The most common method of crop storage in Bunda district was in sacks/open drums, however the proportion of households storing crops in the district was the lowest when compared to other

districts in Mara region. The district had the third lowest proportion of households selling crops, however for those who sell, the main marketing problem was low price of agricultural produce. There was no access to agricultural credit in the district.

The district had the third highest proportion of households receiving extension services in the region and mostly was from the government.

The district had the third smallest number of households having erosion control and water harvesting structures in Bunda district, most of which were terraces, erosion control bunds and water harvesting bunds. The district had the largest number of cattle (494,415) in the region comprised of indigenous breeds only. Goat population was second highest (211,284), same applies to sheep population (109,999) in the region. Pig rearing was less important in the district (194). The district had the third largest number of chicken in the region (324,962), dominated by indigenous breeds. It had a considerable number of ducks (18,785) and a small numbers of donkeys (1,162). It had the second lowest proportion of households reporting ticks problems and third lowest proportion of households reporting tsetse fly problems in the region. It had the third smallest number of households de-worming livestock compared to other districts.

Bunda district had the lowest percentage of households with no toilet facilities. It had the second lowest proportion of households with radio (67%); however it had the largest proportion of households with bicycles (62%). It had the second largest proportion of households using hurricane lamps and pressure lamps; however it was the only district in the region with households using crop residues (2%) as source of energy for cooking. The main source of energy for lighting was the wick lamp (55%) and the largest percent of households used firewood for cooking (97%). The district had the third smallest percent of households with grass/leaves roofs and 45 percent of households in the district had iron sheet roofing (third highest in the region). The main sources of drinking water were the unprotected wells (31%) and surface water (lake/river/dam/stream) (28%). It had the second smallest percentage of households having three meals per day (24%). The district had the second highest percentage of households that did not eat meat and the third highest percentage of households that did not eat fish during the week prior to enumeration (15%). The district had the highest proportion of households that seldom face food problems (52% of the total agricultural households).

4.1.5 Musoma Urban

Musoma Urban district had the smallest number of households as well as the smallest proportion of households involved in smallholder agriculture in the region (61.6%). Most smallholders were involved in crop farming only, followed by those involved in both crop and livestock production. There were no households involved in livestock keeping only and pastoralists in the district.

The most important livelihood activity for smallholder households in Musoma Urban district was annual crop farming, followed by fishing and livestock keeping. However, the district had the lowest proportion of households with no off-farm activities and the second highest percent of households with more than one member with off-farm income compared to other districts in the region. Musoma Urban had the highest percentage of female headed households in the region (49%) and it had the highest average age for the household head (47 years). Its average household size of 6.0 members per household was the third lowest in the region. Musoma Urban had the third highest literacy rate (78.5%) for smallholder households members in the region. The literacy rate for the heads of household was the lowest (73%) compared to other district in the region.

It had the lowest utilized land area per household (0.9 ha) in the region and 96.4 percent of the available land is currently being utilised. Compared to other districts in the region, the total planted area was the smallest, likewise it had the smallest planted area per household during long rainy season (0.2 ha) and the smallest planted area per household during the short rainy season (0.2 ha) . The district had the smallest area planted with maize (7 ha) and smallest area planted per maize growing household (0.1ha) in the region. The district had the lowest planted area of paddy (5 ha) Finger millet and sorghum was not grown in the district. Cassava and sweet potato production were small accounting for only 0.5 and 0.8 percent of the cassava and sweet potato planted area in the region respectively. The production of beans in Musoma Urban was comparatively small with a planted area of (34 ha) and the area planted with bambara nuts was also very small (2 ha). Oilseed crops were not important in Musoma Urban, there was no data on the area planted with oil seed crop reported. The district had the smallest area planted with fruits and vegetables in the region which were dominated by tomatoes (14 ha).

Musoma Urban had the smallest proportion of its planted area applied with fertilizers (compost, farm yard manure and inorganic manure), however most of this was organic fertilizer. It had the smallest proportion of area planted with improved seeds, however the district had the lowest level of insecticide and fungicide use (21 ha) each. Herbicide use was not reported in the district. It had

the smallest irrigated area (21 ha). The main source of water for irrigation was from borehole and river using hand buckets.

The most common method of crop storage was in sacks/open drums. The proportion of households storing crops in the district was the third lowest in the region (92.7%). The district had the smallest proportion of households selling crops, however for those that sell, the main reason for not selling was low price of agricultural produce. There was no access to agricultural credit in the district.

A comparatively low number of households received extension services in Musoma Urban district and a large percentage of this was from the government.

The district had a relatively small number of households with erosion control and water harvesting structures mostly water harvesting bunds and terraces.

The district had the second smallest number of cattle (1,731) in the region and these were dominated by indigenous breeds. There was no pig husbandry in Musoma Urban district. It had the smallest number of goat (1,511), sheep (119) and chicken (5,551) populations compared to other districts in the region with a small broilers population. Small numbers of ducks (798) were also found in the district. A small number of households reported tick (238 hh) and tsetsefly (17 hh) problem in the district, however the district had the smallest proportion (13%) of households deworming livestock. Fish farming was not practiced in the district.

Musoma Urban district had the highest percent of households with improved pit latrine toilet facilities (22%) compared to other districts; and it had the second highest proportion of households owning radios (69%), televisions/videos (7%), refrigerator (4%) and motorcycle (4%). The main source of energy for lighting was the wick lamp (49%), followed by hurricane lamp (38%). Most households used firewood (89%) for cooking, however the district had the highest percent of households in the region that used charcoal (11%) for cooking. It was the district with the lowest percent of households with grassy/leaves roofing (27%), and 73 percent of households having iron sheet roofing. The most common sources of drinking water were surface water (lake/river/dam/stream) and piped water. It had the second least percentage of households having one meal per day compared to other districts, however most households normally had 2 meals per day. The district had the third highest percent of households that did not eat meat during the week

prior to enumeration, however it had the lowest percent of households that did not eat fish during the respective period. Most households seldom had food shortage problems

4.1.6 Rorya

Rorya district had the third smallest number of households, however it had third highest proportion (98.7%) of households involved in smallholder agriculture in the region. Most smallholders were involved in crop and livestock farming, followed by those involved in crop production only. Very few households were involved in livestock keeping only. No pastoralists were found in the district.

The most important livelihood activity for smallholder households in Rorya district was annual crop farming, followed by livestock keeping and fishing. However, the district had the third lowest proportion of households with off-farm activities and the second lowest percent of households with more than one member with off-farm income compared to other districts in the region. Rorya had the third highest percentage of female headed households in the region (24%) and it had the second highest average age (46 years) for the household head. Its average household size of 5.3 members per household was the lowest in the region. Rorya had the third highest literacy (78.6) for smallholder households members. The literacy rate for the heads of household was the third lowest in the region.

It had the third highest utilized land area per household (1.5 ha) in the region and 76.7 percent of the available land is currently being utilised. Compared to other districts in the region, the total planted area was the second smallest, however it had the third lowest planted area per household during long rainy season (0.9 ha) and the highest planted area per household during the short rainy season (1.2 ha) .

The district had the second smallest area planted with maize and second smallest area planted per maize growing household in the region (0.6). The district had the second lowest planted area of paddy (174 ha) and the third smallest area planted with sorghum (13,109 ha). Finger millet had a third smallest area planted in the district (648 ha). Cassava production had the third largest planted area accounting for 14.4 percent of the cassava planted area in the region, while sweet potatoes had the second smallest planted area accounting for 6.7 percent of the area planted with sweet potatoes in the region. The area planted with beans in Rorya was comparatively small (1,376 ha) and the area planted with greengram was also very small (167 ha). Oilseed crops were not important in Rorya, with the smallest area planted with sunflower and groundnuts (200 ha and 153 ha

respectively) in the region. The district had the smallest area planted with fruits and vegetables in the region which were dominated by tomatoes (70 ha) and okra (70 ha).

Compared to other districts in the region, Rorya had a third largest planted area with permanent crops which were dominated by orange (48 ha), mango (22 ha) and banana (19 ha). Small quantities of other permanent crops were also grown.

Rorya had the third smallest proportion of its planted area applied with fertilizers (compost, farm yard manure and inorganic manure), however most of this was organic fertilizer. It had the second smallest proportion of area planted with improved seeds, however the district had the second lowest level of insecticide use. However, the use of fungicides was the second lowest in the region. It had the second smallest irrigated area (209 ha). The main source of water for irrigation was from lake and canals using hand buckets and gravity.

The most common method of crop storage was in locally made traditional structure. The proportion of households storing crops in the district was the highest in the region. The district had the smallest proportion of households selling crops, however, for those who sell, the main marketing problem was low price for their agricultural produce. There was 172 households (0.5% of the total household with access to credit) borrowed money for agricultural activities in the district. It is the only district in the region having the same percent of credit received to male and female household member.

A comparatively low number of households received extension services in Rorya district and a large percentage of this was from the government. The district had a third largest number of households with erosion control and water harvesting structures mostly erosion control bunds and terraces.

The district had the second smallest number of cattle (160,206) in the region and these were dominated by indigenous breeds. It was among three districts involved in pig husbandry rearing a small number of pig (344). It had the second smallest number of goats (81,436), sheep (40,847) and chicken (232,956) populations compared to other districts in the region with a small broilers population. The district had the third largest number of ducks (12,039) in the region. Whilst a third highest number of households reported tick related problems in the district, the district had the third

lowest number of households reporting tsetse related problems, however the district had the second smallest proportion of households de-worming livestock.

Rorya district had the highest percent of households with no toilet facilities (30%) and it had the third highest proportion of households owning radios (68%) and bicycle (59%). It had the second highest percent of households owning mobile phones (40%) and the highest percent for those owning irons (40%). The main source of energy for lighting was the wick lamp (63%) followed by hurricane lamp (31%). Most households used firewood for cooking (98%). It was the district with the second highest percent of households with grassy/leaves roofing (60%), and 31 percent of households having iron sheet roofing. The most common sources of drinking water were unprotected well (39%), followed by surface water (lake/river/dam/stream) (28%). It had the second least percentage of households having one meal per day (2%) compared to other districts, however most households normally had 2 meals per day. The district had the second lowest percent of households that did not eat meat during the week prior to enumeration, however it had the lowest percent of households that did not eat fish during the respective period. Most households seldom had food problems.

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TYPE OF AGRICULTURE HOUSEHOLDS

APPENDIX II TABLES

2.1 Number of Households by type of Household and District during 2007/08 Agriculture year

District	Rural Households involved in Agriculture	% of Total Rural Households	Rural households NOT involved in Agriculture	% of Total Rural Households	Total Rural Households	% of Total Households	Number of Urban Households	% of Total Households	Total Number of Households
Tarime	56,700	99.2	485	0.8	57,185	78.3	15,844	21.70	73,029
Serengeti	34,314	99.4	206	0.6	34,520	92.3	2,867	7.67	37,386
Musoma Rural	60,910	97.2	1,786	2.8	62,696	96.8	2,055	3.17	64,751
Bunda	39,216	97.9	857	2.1	40,073	75.7	12,871	24.31	52,944
Musoma Urban	764	61.6	476	38.4	1,240	3.8	31,454	96.21	32,694
Rorya	34,827	98.7	466	1.3	35,293	78.7	9,564	21.32	44,857
Total	226,731	98.1	4,276	1.9	231,007	75.6	74,654	24.42	305,661

2.2 Number of Agriculture Households by type of Holding by District during 2007/08 Agriculture year

District	Crops Only		Livestock Only		Pastoralist		Crops & Livestock		Total Number of Households	Total Number of Households Growing Crops	Total Number of Households Rearing Livestock
	Number of households	%	Number of households	%	Number of households	%	Number of households	%			
Tarime	18,620	33	0	0	0	0	38,080	67	56,700	56,700	38,080
Serengeti	17,369	51	85	0	0	0	16,860	49	34,314	34,229	16,945
Musoma Rural	32,937	54	451	1	0	0	27,522	45	60,910	60,459	27,974
Bunda	21,496	55	97	0	0	0	17,623	45	39,216	39,119	17,720
Musoma Urban	662	87	0	0	0	0	102	13	764	764	102
Rorya	13,845	40	172	0	0	0	20,810	60	34,827	34,655	20,982
Total	104,928	46	805	0	0	0	120,998	53	226,731	225,926	121,803

2.3 Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year

District	2.1 Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	17,541	70	720	3	0	0	6,753	27	25,014	100
0.51 - 1.00	25,994	62	0	0	0	0	15,691	38	41,686	100
1.01 - 1.50	18,907	49	0	0	0	0	19,942	51	38,849	100
1.51 - 2.00	12,056	44	0	0	0	0	15,563	56	27,619	100
2.01 - 2.50	13,896	38	0	0	0	0	22,557	62	36,453	100
2.51 - 3.00	3,766	44	0	0	0	0	4,747	56	8,513	100
3.01 - 3.50	3,861	35	0	0	0	0	7,195	65	11,056	100
3.51 - 4.00	1,573	26	0	0	0	0	4,541	74	6,113	100
4.01 - 4.50	2,849	28	0	0	0	0	7,318	72	10,167	100
4.51 - 5.00	684	17	0	0	0	0	3,365	83	4,049	100
Above 5	3,801	22	85	0	0	0	13,326	77	17,212	100
Total	104,928	46	805	0	0	1	120,998	53	226,731	100

2.4 Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year

District	2.1 Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	17,541	17	720	89	0	0	6,753	6	25,014	11
0.51 - 1.00	25,994	25	0	0	0	0	15,691	13	41,686	18
1.01 - 1.50	18,907	18	0	0	0	0	19,942	16	38,849	17
1.51 - 2.00	12,056	11	0	0	0	0	15,563	13	27,619	12
2.01 - 2.50	13,896	13	0	0	0	0	22,557	19	36,453	16
2.51 - 3.00	3,766	4	0	0	0	0	4,747	4	8,513	4
3.01 - 3.50	3,861	4	0	0	0	0	7,195	6	11,056	5
3.51 - 4.00	1,573	1	0	0	0	0	4,541	4	6,113	3
4.01 - 4.50	2,849	3	0	0	0	0	7,318	6	10,167	4
4.51 - 5.00	684	1	0	0	0	0	3,365	3	4,049	2
Above 5	3,801	4	85	11	0	0	13,326	11	17,212	8
Total	104,928	100	805	100	0	0	120,998	100	226,731	100

HOUSEHOLD DEMOGRAPHICS

3.1 Number of Heads of Agricultural Households by sex of head and District, 2007/08 Agricultural Year

District	Male		Female		Total
	Number	Percent	Number	Percent	
Tarime	46,480	82	10,220	18	56,700
Serengeti	27,197	79	7,117	21	34,314
Musoma Rural	44,968	74	15,942	26	60,910
Bunda	30,114	77	9,102	23	39,216
Musoma Urban	390	51	373	49	764
Rorya	26,572	76	8,255	24	34,827
Total	175,721	78	51,010	22	226,731

3.2 Number of Household Members classified by District and Sex

District	Male		Female		Total
	Number	Percent	Number	Percent	
Tarime	165,059	52	152,319	48	317,379
Serengeti	106,330	50	108,278	50	214,608
Musoma Rural	205,140	49	213,863	51	419,003
Bunda	137,693	50	137,596	50	275,288
Musoma Urban	2,292	50	2,326	50	4,617
Rorya	93,819	51	91,239	49	185,058
Total	710,332	50	705,621	50	1,415,953

3.3 Number of Agricultural Household Members By Sex and Age Group, 2007/08 Agricultural Year

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	119,705	51	112,885	49	232,590	100
5 - 9	110,583	51	104,215	49	214,799	100
10 - 14	107,345	52	99,338	48	206,682	100
15 - 19	92,136	53	81,750	47	173,887	100
20 - 24	55,630	48	60,292	52	115,922	100
25 - 29	40,571	45	49,464	55	90,035	100
30 - 34	35,926	47	40,462	53	76,388	100
35 - 39	30,203	44	37,928	56	68,131	100
40 - 44	24,594	49	25,886	51	50,479	100
45 - 49	21,705	48	23,729	52	45,433	100
50 - 54	17,905	47	19,814	53	37,719	100
55 - 59	13,742	50	13,968	50	27,710	100
60 - 64	12,348	51	11,780	49	24,128	100
65 - 69	7,862	42	11,059	58	18,921	100
70 - 74	8,271	60	5,576	40	13,847	100
75 - 79	6,864	66	3,518	34	10,382	100
80 - 84	2,785	54	2,332	46	5,117	100
Above 85	2,159	57	1,624	43	3,782	100
Total	710,332	50	705,621	50	1,415,953	100

3.4 Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year

District	Married						Not Married					
	Male		Female		Total		Male		Female		Total	
Tarime	45,640	89	5,880	11	51,520	100	420	75	140	25	560	100
Serengeti	25,502	90	2,965	10	28,468	100	678	35	1,271	65	1,949	100
Musoma Rural	43,314	90	4,963	10	48,277	100	602	33	1,203	67	1,805	100
Bunda	27,597	93	2,033	7	29,630	100	194	22	678	78	871	100
Musoma Urban	323	76	102	24	424	100	17	33	34	67	51	100
Rorya	25,282	86	4,042	14	29,324	100	430	63	258	38	688	100
Total	167,657	89	19,985	11	187,643	100	2,340	40	3,584	60	5,924	100

...Cont. 3.4 Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year

District	Living together						Separated					
	Male		Female		Total		Male		Female		Total	
Tarime	0	0	140	100	140	100	280	22	980	78	1,260	100
Serengeti	0	0	85	100	85	100	508	55	424	45	932	100
Musoma Rural	0	0	301	100	301	100	150	8	1,654	92	1,805	100
Bunda	0	0	97	100	97	100	1,549	39	2,421	61	3,970	100
Musoma Urban	0	0	0	0	0	0	34	50	34	50	68	100
Rorya	0	0	86	100	86	100	172	67	86	33	258	100
Total	0	0	708	100	708	100	2,694	32	5,599	68	8,293	100

...Cont. 3.4 Number of Heads of Agricultural Households by Marital Status, sex of head and Region, 2007/08 Agricultural Year

District	Widowed						Total					
	Male		Female		Total		Male		Female		Total	
Tarime	140	4	3,080	96	3,220	100	46,480	82	10,220	18	56,700	100
Serengeti	508	18	2,372	82	2,881	100	27,197	79	7,117	21	34,314	100
Musoma Rural	902	10	7,821	90	8,723	100	44,968	74	15,942	26	60,910	100
Bunda	775	17	3,873	83	4,648	100	30,114	77	9,102	23	39,216	100
Musoma Urban	17	8	204	92	221	100	390	51	373	49	764	100
Rorya	688	15	3,784	85	4,472	100	26,572	76	8,255	24	34,827	100
Total	3,030	13	21,133	87	24,164	100	175,721	78	51,010	22	226,731	100

3.5 Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and District, 2007/08 Agricultural Year

District	Yes						No					
	Male		Female		Total		Male		Female		Total	
Tarime	28,420	85	4,900	15	33,320	100	17,640	77	5,180	23	22,820	100
Serengeti	17,623	80	4,406	20	22,028	100	9,574	78	2,711	22	12,285	100
Musoma Rural	25,868	79	6,768	21	32,636	100	19,100	68	9,174	32	28,274	100
Bunda	18,301	81	4,357	19	22,658	100	11,813	71	4,745	29	16,558	100
Musoma Urban	221	57	170	43	390	100	170	45	204	55	373	100
Rorya	15,135	82	3,268	18	18,403	100	11,437	70	4,988	30	16,425	100
Total	105,567	82	23,868	18	129,436	100	69,734	72	27,001	28	96,736	100

..Cont. 3.5 Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and District, 2007/08
Agricultural Year

District	Don't know						Total					
	Male		Female		Total		Male		Female		Total	
Tarime	420	75	140	25	560	100	46,480	82	10,220	18	56,700	100
Serengeti	0	0	0	0	0	0	27,197	79	7,117	21	34,314	100
Musoma Rural	0	0	0	0	0	0	44,968	74	15,942	26	60,910	100
Bunda	0	0	0	0	0	0	30,114	77	9,102	23	39,216	100
Musoma Urban	0	0	0	0	0	0	390	51	373	49	764	100
Rorya	0	0	0	0	0	0	26,572	76	8,255	24	34,827	100
Total	420	75	140	25	560	100	175,721	78	51,010	22	226,731	100

3.6 Number of Agricultural Household Members By Survival of Female Parent and District , 2007/08 Agricultural Year

District	Survival of Mother							
	Yes		No		Don't know		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	276,639	87	39,900	13	840	0	317,379	100
Serengeti	185,886	87	28,468	13	254	0	214,608	100
Musoma Rural	357,190	85	61,813	15	0	0	419,003	100
Bunda	234,717	85	40,572	15	0	0	275,288	100
Musoma Urban	3,887	84	730	16	0	0	4,617	100
Rorya	149,198	81	35,859	19	0	0	185,058	100
Total	1,207,518	85	207,341	15	1,094	0	1,415,953	100

3.7 Number of Heads of Agricultural Households by Survival of Male Parent, sex of head and District, 2007/08 Agricultural Year

District	Yes						No					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Tarime	28,420	85	4,900	15	33,320	100	17,640	77	5,180	23	22,820	100
Serengeti	17,623	80	4,406	20	22,028	100	9,574	78	2,711	22	12,285	100
Musoma Rural	25,868	79	6,768	21	32,636	100	19,100	68	9,174	32	28,274	100
Bunda	18,301	81	4,357	19	22,658	100	11,813	71	4,745	29	16,558	100
Musoma Urban	221	57	170	43	390	100	170	45	204	55	373	100
Rorya	15,135	82	3,268	18	18,403	100	11,437	70	4,988	30	16,425	100
Total	105,567	82	23,868	18	129,436	100	69,734	72	27,001	28	96,736	100

...Cont. 3.7 Number of Heads of Agricultural Households by Survival of Male Parent, sex of head and District, 2007/08 Agricultural Year

District	Don't know						Total					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Tarime	420	75	140	25	560	100	46,480	82	10,220	18	56,700	100
Serengeti	0	0	0	0	0	0	27,197	79	7,117	21	34,314	100
Musoma Rural	0	0	0	0	0	0	44,968	74	15,942	26	60,910	100
Bunda	0	0	0	0	0	0	30,114	77	9,102	23	39,216	100
Musoma Urban	0	0	0	0	0	0	390	51	373	49	764	100
Rorya	0	0	0	0	0	0	26,572	76	8,255	24	34,827	100
Total	420	75	140	25	560	100	175,721	78	51,010	22	226,731	100

3.8 Number of Agricultural Household Members By Survival of Male Parent and District , 2007/08 Agricultural Year

District	Survival of Father							
	Yes		No		Don't know		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	241,639	76	75,180	24	560	0	317,379	100
Serengeti	159,706	74	54,563	25	339	0	214,608	100
Musoma Rural	303,048	72	115,504	28	451	0	419,003	100
Bunda	207,895	76	67,297	24	97	0	275,288	100
Musoma Urban	3,039	66	1,579	34	0	0	4,617	100
Rorya	123,658	67	61,141	33	258	0	185,058	100
Total	1,038,985	73	375,263	27	1,705	0	1,415,953	100

3.9 Number of Household Members Who Can Read and Write languages by type of language and District

District	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total
	Number	%	Number	%	Number	%	Number	%	
Tarime	200,899	72.4	33,320	12.0	140	0.1	42,980	15.5	277,339
Serengeti	117,767	69.1	12,878	7.6	85	0.0	39,736	23.3	170,466
Musoma Rural	254,019	72.8	23,462	6.7	150	0.0	71,137	20.4	348,768
Bunda	159,189	70.3	18,301	8.1	0	0.0	49,093	21.7	226,583
Musoma Urban	2,495	65.9	475	12.6	0	0.0	815	21.5	3,785
Rorya	107,664	68.8	13,329	8.5	1,892	1.2	33,537	21.4	156,422
Total	842,033	71.2	101,765	8.6	2,267	0.2	237,298	20.1	1,183,363

3.10 Number of Heads of Agricultural Households By Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year

District	Swahili						Swahili & English					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Tarime	33,880	87	5,040	13	38,920	100	4,760		5,460		10,220	100
Serengeti	20,758	82	4,406	18	25,163	100	2,542		4,490		7,032	100
Musoma Rural	35,193	83	7,369	17	42,562	100	3,158		7,369		10,528	100
Bunda	23,046	82	4,938	18	27,984	100	2,711		5,035		7,746	100
Musoma Urban	255	56	204	44	458	100	85		204		289	100
Rorya	20,552	85	3,612	15	24,164	100	2,494		3,612		6,106	100
Total	133,683	84	25,569	16	159,252	100	15,750	93	26,170	7	41,920	100

...Cont. 3.10 Number of Heads of Agricultural Households By Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year

Region	Any Other Language						Don't Read / Write					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Tarime	140	100	0	0	140	100	7,700	70	3,360	30	11,060	100
Serengeti	0	0	0	0	0	0	3,897	60	2,626	40	6,524	100
Musoma Rural	0	0	0	0	0	0	6,617	46	7,821	54	14,438	100
Bunda	0	0	0	0	0	0	4,357	53	3,873	47	8,231	100
Musoma Urban	0	0	0	0	0	0	51	25	153	75	204	100
Rorya	516	86	86	14	602	100	3,010	40	4,558	60	7,567	100
Total	656	88	86	12	742	100	25,633	53	22,391	47	48,023	100

...Cont. 3.10 Number of Heads of Agricultural Households By Status of writing and reading Languages, sex of head and Region, 2007/08 Agricultural Year

Region	Total					
	Male	%	Female	%	Total	%
Tarime	46,480	82	10,220	18	56,700	100
Serengeti	27,197	79	7,117	21	34,314	100
Musoma Rural	44,968	74	15,942	26	60,910	100
Bunda	30,114	77	9,102	23	39,216	100
Musoma Urban	390	51	373	49	764	100
Rorya	26,572	76	8,255	24	34,827	100
Total	175,721	78	51,010	22	226,731	100

3.11 Number of Agricultural Household Members by Literacy Level and District

District	Read and Write Languages					
	Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%
Tarime	234,359	85	42,980	15	277,339	100
Serengeti	130,730	77	39,736	23	170,466	100
Musoma Rural	277,631	80	71,137	20	348,768	100
Bunda	177,490	78	49,093	22	226,583	100
Musoma Urban	2,971	78	815	22	3,785	100
Rorya	122,884	79	33,537	21	156,422	100
Total	946,065	80	237,298	20	1,183,363	100

3.12 Number of Agricultural Household Members reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	125,720	87	18,340	13	144,059	100	108,640	82	24,640	18	133,280	100	234,359	85	42,980	15	277,339	100
Serengeti	66,763	81	15,928	19	82,691	100	63,967	73	23,808	27	87,775	100	130,730	77	39,736	23	170,466	100
Musoma Rural	142,876	83	28,575	17	171,451	100	134,755	76	42,562	24	177,317	100	277,631	80	71,137	20	348,768	100
Bunda	91,117	81	20,722	19	111,839	100	86,373	75	28,371	25	114,744	100	177,490	78	49,093	22	226,583	100
Musoma Urban	1,579	87	238	13	1,816	100	1,392	71	577	29	1,969	100	2,971	78	815	22	3,785	100
Rorya	64,581	82	14,189	18	78,770	100	58,303	75	19,348	25	77,652	100	122,884	79	33,537	21	156,422	100
Total	492,636	83	97,992	17	590,627	100	453,430	76	139,307	24	592,736	100	946,065	80	237,298	20	1,183,363	100

3.13 Number of heads of Agricultural households reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	38,780	83	7,700	17	46,480	100	6,860	67	3,360	33	10,220	100	45,640	80	11,060	20	56,700	100
Serengeti	23,299	86	3,897	14	27,197	100	4,490	63	2,626	37	7,117	100	27,790	81	6,524	19	34,314	100
Musoma Rural	38,351	85	6,617	15	44,968	100	8,121	51	7,821	49	15,942	100	46,472	76	14,438	24	60,910	100
Bunda	25,757	86	4,357	14	30,114	100	5,229	57	3,873	43	9,102	100	30,986	79	8,231	21	39,216	100
Musoma Urban	340	87	51	13	390	100	221	59	153	41	373	100	560	73	204	27	764	100
Rorya	23,562	89	3,010	11	26,572	100	3,698	45	4,558	55	8,255	100	27,260	78	7,567	22	34,827	100
Total	150,089	85	25,633	15	175,721	100	28,619	56	22,391	44	51,010	100	178,708	79	48,023	21	226,731	100

3.14 Number of Household Members by Education Status and District

District	Attending School	%	Completed	%	Never Attended to School	%	Total
Tarime	118,580	43	121,380	44	37,380	13	277,339
Serengeti	64,391	38	71,084	42	34,991	21	170,466
Musoma Rural	131,446	38	156,713	45	60,610	17	348,768
Bunda	91,214	40	95,571	42	39,797	18	226,583
Musoma Urban	1,324	35	1,782	47	679	18	3,785
Rorya	59,679	38	70,858	45	25,884	17	156,422
Total	466,634	39	517,389	44	199,341	17	1,183,363

3.15 Number of Heads of Agricultural Households by Education Status, sex of head and District, 2007/08 Agricultural Year

District	Attending School						Completed					
	Male		Female		Total		Male		Female		Total	
Tarime	1,680	86	280	14	1,960	100	37,240	84	6,860	16	44,100	100
Serengeti	339	100	0	0	339	100	22,622	83	4,490	17	27,112	100
Musoma Rural	301	67	150	33	451	100	38,351	83	7,971	17	46,322	100
Bunda	194	67	97	33	290	100	25,563	83	5,132	17	30,695	100
Musoma Urban	34	100	0	0	34	100	306	60	204	40	509	100
Rorya	430	100	0	0	430	100	22,960	86	3,784	14	26,744	100
Total	2,977	85	527	15	3,504	100	147,041	84	28,441	16	175,482	100

Cont 3.15 Number of Heads of Agricultural Households by Education Status, sex of head and District, 2007/08

Agricultural Year

District	Never Attended to School						Total					
	Male		Female		Total		Male		Female		Total	
Tarime	7,560	71	3,080	29	10,640	100	46,480	82	10,220	18	56,700	100
Serengeti	4,236	62	2,626	38	6,863	100	27,197	79	7,117	21	34,314	100
Musoma Rural	6,317	45	7,821	55	14,137	100	44,968	74	15,942	26	60,910	100
Bunda	4,357	53	3,873	47	8,231	100	30,114	77	9,102	23	39,216	100
Musoma Urban	51	23	170	77	221	100	390	51	373	49	764	100
Rorya	3,182	42	4,472	58	7,653	100	26,572	76	8,255	24	34,827	100
Total	25,703	54	22,042	46	47,745	100	175,721	78	51,010	22	226,731	100

3.16 Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year

District	Education Level											
	Under Standard One		Standard One		Standard Two		Standard Three		Standard Four		Standard Five	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	0.0	980	0.8	2,100	1.7	2,100	1.7	6,860	5.7	3,780	3.1
Serengeti	0	0.0	593	0.8	339	0.5	678	1.0	2,881	4.1	763	1.1
Musoma Rural	602	0.4	1,354	0.9	2,707	1.7	2,106	1.3	10,377	6.6	2,256	1.4
Bunda	97	0.1	1,937	2.0	1,549	1.6	1,743	1.8	6,391	6.7	2,130	2.2
Musoma Urban	0	0.0	0	0.0	51	2.9	51	2.9	187	10.5	85	4.8
Rorya	0	0.0	172	0.2	516	0.7	860	1.2	4,386	6.2	1,118	1.6
Total	698	0.1	5,035	1.0	7,262	1.4	7,537	1.5	31,081	6.0	10,132	2.0

**...cont 3.16 Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08
Agricultural Year**

District	Education Level											
	Standard Six		Standard Seven		Standard Eight		Training After Primary Education		Pre Form One		Form One	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	3,080	2.5	90,720	74.7	840	0.7	280	0.2	700	0.6	1,260	1.0
Serengeti	1,101	1.5	59,561	83.8	339	0.5	169	0.2	254	0.4	339	0.5
Musoma Rural	2,858	1.8	122,122	77.9	1,203	0.8	1,203	0.8	150	0.1	451	0.3
Bunda	1,065	1.1	73,010	76.4	1,065	1.1	387	0.4	387	0.4	290	0.3
Musoma Urban	0	0.0	1,273	71.4	0	0.0	0	0.0	0	0.0	0	0.0
Rorya	1,548	2.2	56,412	79.6	688	1.0	86	0.1	0	0.0	688	1.0
Total	9,652	1.9	403,097	77.9	4,135	0.8	2,126	0.4	1,492	0.3	3,029	0.6

**...cont 3.16 Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08
Agricultural Year**

District	Education Level											
	Form Two		Form Three		Form Four		Form Five		Form Six		Training After Secondary Education	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,400	1.2	980	0.8	3,780	3.1	140	0.1	280	0.2	420	0.3
Serengeti	508	0.7	508	0.7	1,779	2.5	0	0.0	169	0.2	254	0.4
Musoma Rural	1,203	0.8	1,053	0.7	5,264	3.4	150	0.1	301	0.2	752	0.5
Bunda	1,452	1.5	97	0.1	2,905	3.0	0	0.0	290	0.3	194	0.2
Musoma Urban	17	1.0	0	0.0	68	3.8	0	0.0	0	0.0	51	2.9
Rorya	1,462	2.1	172	0.2	2,064	2.9	0	0.0	0	0.0	86	0.1
Total	6,043	1.2	2,810	0.5	15,860	3.1	290	0.1	1,041	0.2	1,757	0.3

**...cont 3.16 Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08
Agricultural Year**

District	Education Level							
	University & Other Tertiary Education		Adult Education		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	420	0.3	1,120	0.9	140	0.1	121,380	100
Serengeti	0	0.0	763	1.1	85	0.1	71,084	100
Musoma Rural	0	0.0	602	0.4	0	0.0	156,713	100
Bunda	0	0.0	387	0.4	194	0.2	95,571	100
Musoma Urban	0	0.0	0	0.0	0	0.0	1,782	100
Rorya	172	0.2	172	0.2	258	0.4	70,858	100
Total	592	0.1	3,043	0.6	676	0.1	517,389	100

3.17 Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2007/08 Agricultural Year

District	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	136,920	49	9,940	4	59,920	22	70,560	25	277,339	100
Serengeti	77,947	46	4,406	3	31,518	18	56,596	33	170,466	100
Musoma Rural	153,103	44	9,776	3	95,652	27	90,238	26	348,768	100
Bunda	103,802	46	4,454	2	52,095	23	66,232	29	226,583	100
Musoma Urban	1,324	35	255	7	1,069	28	1,137	30	3,785	100
Rorya	70,772	45	9,975	6	34,139	22	41,535	27	156,422	100
Total	543,868	46	38,805	3	274,393	23	326,297	28	1,183,363	100

3.18 Number of Agricultural Household Members By Main Activity and District, 2007/08 Agricultural Year

District	Main Activity									
	Crop/Seaweed Farming		Livestock Keeping / Herding		Livestock Pastoralist		Fishing		Fish Farming	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	134,120	48.4	1,540	0.6	0	0.0	140	0.1	0	0.0
Serengeti	78,370	46.0	2,118	1.2	169	0.1	85	0.0	0	0.0
Musoma Rural	155,660	44.6	2,106	0.6	0	0.0	11,731	3.4	0	0.0
Bunda	106,223	46.9	2,711	1.2	97	0.0	1,452	0.6	0	0.0
Musoma Urban	1,324	35.0	51	1.3	0	0.0	475	12.6	0	0.0
Rorya	72,492	46.3	2,322	1.5	0	0.0	1,978	1.3	0	0.0
Total	548,189	46.3	10,848	0.9	266	0.0	15,861	1.3	0	0.0

...Cont.3.18 Number of Agricultural Household Members By Main Activity and District, 2007/08 Agricultural Year

District	Main Activity									
	Government / Parastatal		Private - NGO / Mission / etc		Self Employed (Non Farming) with Employees		Self Employed (Non Farming) without Employees		Unpaid Family Helper (Non Agriculture)	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,260	0.5	4,620	1.7	700	0.3	420	0.2	560	0.2
Serengeti	1,440	0.8	1,101	0.6	254	0.1	254	0.1	932	0.5
Musoma Rural	2,256	0.6	1,805	0.5	1,354	0.4	5,113	1.5	602	0.2
Bunda	1,162	0.5	1,259	0.6	387	0.2	775	0.3	387	0.2
Musoma Urban	34	0.9	85	2.2	51	1.3	102	2.7	0	0.0
Rorya	1,204	0.8	1,548	1.0	344	0.2	1,118	0.7	172	0.1
Total	7,356	0.6	10,418	0.9	3,090	0.3	7,782	0.7	2,653	0.2

...Cont.3.18 Number of Agricultural Household Members By Main Activity and District, 2007/08 Agricultural Year

District	Main Activity													
	Not Working & Available		Not Working & Unavailable		Housemaker / Housewife		Student		Unable to Work / Too Old / Retired / Sick / Disabled		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,260	0.5	560	0.2	1,540	0.6	114,940	41.4	14,980	5.4	700	0.3	277,339	100
Serengeti	508	0.3	169	0.1	508	0.3	65,492	38.4	18,894	11.1	169	0.1	170,466	100
Musoma Rural	451	0.1	451	0.1	752	0.2	130,243	37.3	35,493	10.2	752	0.2	348,768	100
Bunda	387	0.2	194	0.1	97	0.0	89,568	39.5	21,884	9.7	0	0.0	226,583	100
Musoma Urban	0	0.0	0	0.0	0	0.0	1,188	31.4	458	12.1	17	0.4	3,785	100
Rorya	430	0.3	344	0.2	1,118	0.7	58,303	37.3	14,791	9.5	258	0.2	156,422	100
Total	3,037	0.3	1,718	0.1	4,015	0.3	459,734	38.8	106,500	9.0	1,896	0.2	1,183,363	100

3.19 Number of Heads of Agricultural Households By Level of Formal Education Completion and District , 2007/08 Agricultural Year

District	Primary Education		Post Primary Education		Adult Education		No Education		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	42,700	75	3,080	5	560	1	10,360	18	56,700	100
Serengeti	25,333	74	1,864	5	254	1	6,863	20	34,314	100
Musoma Rural	42,712	70	3,610	6	451	1	14,137	23	60,910	100
Bunda	28,081	72	2,518	6	387	1	8,231	21	39,216	100
Musoma Urban	441	58	85	11	17	2	221	29	764	100
Rorya	25,196	72	1,892	5	86	0	7,653	22	34,827	100
Total	164,463	73	13,048	6	1,756	1	47,465	21	226,731	100

3.20 Mean, Meadian, Mode of Age of Head of Agricultural Household and District

District	Male			Female			Total		
	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
Tarime	46	45	30	44	42	34	46	44	30
Serengeti	43	40	40	42	40	33	43	40	32
Musoma Rural	47	45	35	52	51	56	48	48	35
Bunda	47	43	38	50	49	44	48	45	40
Musoma Urban	47	47	35	56	53	53	51	52	60
Rorya	46	44	35	52	53	68	48	46	50
Total	46	44	30	49	48	50	47	45	40

3.21 Number of of Agricultural Households Involved in Off farm Income Generating Activities by number of off farm income activities and District , 2007/08 Agricultural Year

District	One Off Farm Income		Two Off Farm Income		More than two Off Farm Income		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	13,580	74	2,240	12	2,520	14	18,340	100
Serengeti	6,524	60	2,711	25	1,694	16	10,929	100
Musoma Rural	16,844	62	7,219	27	3,008	11	27,071	100
Bunda	10,748	43	4,648	19	9,393	38	24,789	100
Musoma Urban	289	53	102	19	153	28	543	100
Rorya	9,029	74	2,752	23	430	4	12,211	100
Total	57,014	61	19,672	21	17,198	18	93,883	100

LAND OWNERSHIP AND LAND USE

4.1 Number of Farming households by type of land Ownership/Tenure and District for the 2007/08 agriculture year

District	Land ownership/tenure														Total number of Agricultural households
	Leased / Certificate of Ownership		Owned under Customary Law		Bought		Rented		Borrowed		Households with area Share - cropped		Households with area under Other forms of Tenure		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Tarime	5,320	9.4	50,120	88.4	6,160	10.9	2,800	4.9	4,340	7.7	700	1.2	2,100	3.7	56,700
Serengeti	1,017	3.0	31,772	92.6	3,474	10.1	1,101	3.2	3,304	9.6	339	1.0	339	1.0	34,314
Musoma Rural	1,955	3.2	51,736	84.9	5,565	9.1	12,032	19.8	6,317	10.4	1,354	2.2	1,053	1.7	60,910
Bunda	871	2.2	34,665	88.4	5,810	14.8	4,745	12.1	3,002	7.7	0	0.0	678	1.7	39,216
Musoma Urban	34	4.4	509	66.7	153	20.0	238	31.1	34	4.4	17	2.2	0	0.0	764
Rorya	2,322	6.7	31,732	91.1	2,666	7.7	2,924	8.4	4,472	12.8	430	1.2	860	2.5	34,827
Total	11,519	5.1	200,534	88.4	23,827	10.5	23,839	10.5	21,468	9.5	2,839	1.3	5,029	2.2	226,731

4.2 Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year

District	Land Ownership/Tenure							
	Area leased / Certificate of Ownership	Area owned under Customary Law	Area Bought	Area rented	Area Borrowed	Area Share - cropped	Area under Other forms of Tenure	Total area
Tarime	8,204	69,434	6,240	1,757	2,239	708	907	89,490
Serengeti	1,989	113,932	5,394	2,212	4,965	1,578	1,029	131,100
Musoma Rural	3,166	89,674	7,215	9,286	4,019	959	822	115,141
Bunda	1,450	92,510	8,252	3,607	1,794	.	804	108,417
Musoma Urban	21	405	117	170	5	2	.	720
Rorya	3,351	57,186	2,864	2,472	2,585	209	836	69,501

4.3 Number of Agriculture Households by Whether All Land Available to the Household Was Used during 2007/08 agriculture year and District

District	Was all Land Available to the Hh Used During 2007/08?				
	Yes	%	No	%	Total
Tarime	40,600	72	16,100	28	56,700
Serengeti	13,810	40	20,503	60	34,314
Musoma Rural	34,441	57	26,470	43	60,910
Bunda	24,304	62	14,912	38	39,216
Musoma Urban	628	82	136	18	764
Rorya	18,145	52	16,683	48	34,827
Total	131,928	58	94,803	42	226,731

4.4 Number of Agriculture Households By Whether Female Members of the Household Own or Have Customary Right to Land By District during 2007/08 Agriculture year

District	Do any Female Members of the Hh own or have customary right to Land				
	Yes	%	No	%	Total
Tarime	11,340	20	45,360	80	56,700
Serengeti	8,727	25	25,587	75	34,314
Musoma Rural	15,491	25	45,420	75	60,910
Bunda	8,521	22	30,695	78	39,216
Musoma Urban	356	47	407	53	764
Rorya	8,169	23	26,658	77	34,827
Total	52,604	23	174,127	77	226,731

4.5 Number of Agriculture Households by Whether they Consider Having Sufficient Land for the Household and District during 2007/08 agriculture year

District	Do you Consider that you have sufficient land for the Hh?				
	Yes	%	No	%	Total
Tarime	7,980	14	48,720	86	56,700
Serengeti	10,167	30	24,147	70	34,314
Musoma Rural	13,385	22	47,525	78	60,910
Bunda	9,780	25	29,436	75	39,216
Musoma Urban	51	7	713	93	764
Rorya	11,351	33	23,476	67	34,827
Total	52,714	23	174,017	77	226,731

4.6 Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year

District	Type of land use												Total number of households
	Households under Temporary Mono Crops	Households under Temporary Mixed Crops	Households under Permanent Mono Crops	Households under Permanent Mixed Crops	Households under Permanent / Annual Mix	Households under Pasture	Households under Fallow	Households under Natural Bush	Households under Planted Trees	Households Rented to Others	Households Unusable	Households of Uncultivated Usable Land	
Tarime	48,160	18,620	6,860	980	2,940	1,680	13,160	140	1,820	1,400	2,940	1,540	56,700
Serengeti	31,348	2,711	1,017	169	2,542	4,999	14,912	3,643	593	593	3,135	6,693	34,314
Musoma Rural	55,346	11,430	3,309	451	1,504	301	12,332	301	602	2,557	2,106	10,077	60,910
Bunda	30,889	14,718	968	0	2,227	871	10,070	1,162	484	1,162	775	5,422	39,216
Musoma Urban	272	526	17	0	17	17	51	0	17	17	34	17	764
Rorya	25,712	8,685	5,504	430	3,268	3,354	9,975	1,462	946	1,032	2,236	3,182	34,827
Total	191,726	56,691	17,674	2,031	12,498	11,222	60,500	6,708	4,462	6,761	11,225	26,931	226,731

4.7 Area of Land (ha) by land use and District for the 2007/08 agriculture year

District	Land use area												Total area (ha)
	Area under Temporary Mono Crops	Area under Temporary Mixed Crops	Area under Permanent Mono Crops	Area under Permanent Mixed Crops	Area under Permanent / Annual Mix	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land	
Tarime	49,552	15,149	3,372	326	2,273	850	14,000	283	737	822	1,275	850	89,490.29
Serengeti	61,580	3,953	1,115	703	5,720	14,698	27,218	3,027	832	1,269	2,624	8,361	131,100.37
Musoma Rural	71,271	9,453	2,481	228	1,979	152	12,467	320	792	2,375	989	12,634	115,141.20
Bunda	54,842	20,105	755	.	2,289	3,773	14,842	1,156	333	1,862	588	7,870	108,416.56
Musoma Urban	179	485	3	.	3	5	24	.	2	7	10	2	719.89
Rorya	28,684	10,270	3,725	322	2,428	5,356	10,498	2,254	557	975	1,332	3,099	69,501.38
Total	266,108	59,415	11,452	1,579	14,693	24,835	79,050	7,041	3,252	7,310	6,819	32,816	514,369.70

CROP OWNERSHIP

5.1 Number of Household members owning most of the crop by Sex of the Main Owner, Season and District for the agriculture year 2007/08

District	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	40,320	75	13,720	25	54,040	100	37,940	76	12,040	24	49,980	100
Serengeti	22,876	75	7,795	25	30,670	100	20,673	76	6,609	24	27,281	100
Musoma Rural	29,177	74	10,227	26	39,404	100	23,311	73	8,422	27	31,734	100
Bunda	26,725	70	11,523	30	38,248	100	12,007	69	5,326	31	17,333	100
Musoma Urban	187	32	390	68	577	100	119	30	272	70	390	100
Rorya	14,275	77	4,214	23	18,489	100	14,361	69	6,535	31	20,896	100
Total	133,559	74	47,868	26	181,428	100	108,411	73	39,203	27	147,614	100

5.2 Planted Area by District, season and Sex of Household members owning most of the crop for the agriculture year 2007/08

District	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%
Tarime	38,379	75	7,371	25	45,750	100	36,043	76	6,057	24	42,100	100
Serengeti	29,482	75	6,461	25	35,943	100	21,919	76	4,636	24	26,555	100
Musoma Rural	22,990	74	5,921	26	28,912	100	18,294	73	4,414	27	22,709	100
Bunda	30,383	70	8,384	30	38,767	100	14,907	69	4,006	31	18,914	100
Musoma Urban	52	32	70	68	122	100	34	30	60	70	94	100
Rorya	17,280	77	3,443	23	20,723	100	13,085	69	3,801	31	16,886	100
Total	138,566	74	31,651	26	170,217	100	104,282	73	22,975	27	127,258	100

5.3 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08 Short and Long Season- Tarime

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	37,660	24,117	7,280	2,940	33,180	21,425	6,300	2,424
Paddy	280	227	0		280	283	0	
Sorghum	16,800	6,341	5,320	1,516	14,980	8,389	5,880	1,919
Bulrush Millet	0		0		0		0	
Finger Millet	3,220	921	1,120	397	4,200	1,318	1,540	354
CEREALS	57,960	31,606	13,720	4,853	52,640	31,415	13,720	4,697
Cassava	140	113	0		0		0	
Sweet Potato	5,740	2,423	4,060	1,363	3,360	1,596	3,500	992
Irish potatoes	560	113	0		420	57	0	
Yams	280	85	0		140	28	140	57
ROOTS & TUBERS	6,720	2,735	4,060	1,363	3,920	1,681	3,640	1,049
Mung Bean	140	57	280	170	0		0	
Beans	9,520	2,735	2,520	546	6,300	2,111	1,120	241
Cowpeas	840	198	280	170	280	57	140	28
Green gram	0		0		280	57	0	
Chick peas	0		0		0		0	
Bambaranuts	0		0		0		140	28
Field Peas	140	28	0		0		0	
PULSES	10,640	3,018	3,080	886	6,860	2,225	1,400	298
Sunflower	0		0		0		0	
Simsim	0		0		0		0	
Groundnut	980	326	140	57	840	283	0	
Soya Beans	140	28	0		280	57	0	
OIL SEEDS & OIL NUTS	1,120	354	140	57	1,120	340	0	
Okra	140	28	0		0		0	
Radish	140	28	0		0		0	
Bitteer Aubergine	0		0		0		0	
Onion	140	57	140	14	280	43	0	
Ginger	0		0		0		0	
Cabbage	280	85	140	14	140	14	0	
Tomatoes	420	99	280	71	280	71	0	
Spinach	0		0		0		140	14
Carrot	140	28	0		140	28	0	
Chillies	0		0		0		0	
Amaranths	0		140	57	0		0	
Pumpkins	0		0		0		0	
Cucumber	0		0		0		0	
Egg Plant	0		140	57	0		0	
Water Mellon	140	227	0		140	227	0	
FRUITS & VEGETABLES	1,400	553	840	213	980	383	140	14
Cotton	0		0		0		0	
Tobacco	280	113	0		0		0	
CASH CROPS	280	113	0		0		0	
Total	78,120	38,379	21,840	7,371	65,520	36,043	18,900	6,057

5.4 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08 Short and Long Season- Serengeti

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	17,030	12,743	5,083	2,646	16,606	11,340	4,321	1,868
Paddy	424	154	0	.	847	617	339	94
Sorghum	15,505	8,370	5,422	2,262	12,285	5,991	4,236	1,739
Bulrush Millet	0	.	0	.	85	274	0	.
Finger Millet	3,389	1,672	1,694	412	4,152	1,734	1,101	300
CEREALS	36,347	22,939	12,200	5,320	33,975	19,957	9,998	4,001
Cassava	0	.	0	.	169	26	169	17
Sweet Potato	3,813	753	2,118	480	1,525	334	1,356	360
Irish potatoes	0	.	0	.	0	.	0	.
Yams	0	.	0	.	0	.	0	.
ROOTS & TUBERS	3,813	753	2,118	480	1,694	360	1,525	377
Mung Bean	0	.	0	.	0	.	0	.
Beans	2,118	617	763	360	2,372	691	678	189
Cowpeas	0	.	0	.	0	.	0	.
Green gram	0	.	0	.	0	.	0	.
Chick peas	0	.	85	17	0	.	0	.
Bambaranuts	0	.	0	.	0	.	0	.
Field Peas	0	.	0	.	0	.	0	.
PULSEES	2,118	617	847	377	2,372	691	678	189
Sunflower	254	257	0	.	85	69	0	.
Simsim	169	51	85	26	169	81	85	17
Groundnut	763	182	254	51	254	77	0	.
Soya Beans	0	.	85	34	0	.	0	.
OIL SEEDS & OIL NUTS	1,186	491	424	111	508	226	85	17
Okra	0	.	0	.	0	.	85	9
Radish	0	.	0	.	0	.	0	.
Bitteer Aubergine	0	.	0	.	0	.	0	.
Onion	254	26	0	.	254	34	169	17
Ginger	0	.	0	.	0	.	0	.
Cabbage	0	.	0	.	85	9	0	.
Tomatoes	339	77	0	.	169	17	169	17
Spinach	0	.	0	.	0	.	0	.
Carrot	0	.	0	.	0	.	0	.
Chillies	0	.	0	.	0	.	0	.
Amaranths	0	.	0	.	0	.	0	.
Pumpkins	0	.	0	.	85	9	85	9
Cucumber	0	.	0	.	85	9	0	.
Egg Plant	0	.	0	.	0	.	0	.
Water Mellon	339	137	0	.	85	69	0	.
FRUITS & VEGETABLES	932	240	0	.	763	146	508	51
Cotton	3,643	3,739	254	137	508	418	0	.
Tobacco	1,440	703	169	34	169	120	0	.
CASH CROPS	5,083	4,442	424	172	678	539	0	.
Total	49,479	29,482	16,013	6,461	39,990	21,919	12,793	4,636

5.5 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08 Short and Long Season- Musoma Rural

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	14,739	9,610	3,610	1,979	15,040	10,491	2,858	2,085
Paddy	1,504	990	752	228	2,858	974	1,504	350
Sorghum	7,971	5,316	2,707	1,477	7,520	4,414	1,805	1,005
Bulrush Millet	0	.	0	.	0	.	0	.
Finger Millet	602	244	301	122	902	335	150	91
CEREALS	24,815	16,159	7,369	3,806	26,319	16,215	6,317	3,532
Cassava	301	167	0	.	451	76	0	.
Sweet Potato	9,325	2,517	4,061	1,172	2,707	708	2,858	518
Irish potatoes	0	.	0	.	0	.	0	.
Yams	150	15	0	.	150	15	0	.
ROOTS & TUBERS	9,776	2,700	4,061	1,172	3,309	799	2,858	518
Mung Bean	0	.	0	.	0	.	0	.
Beans	5,715	1,528	2,256	518	3,459	997	1,504	304
Cowpeas	0	.	0	.	0	.	150	15
Green gram	0	.	0	.	0	.	0	.
Chick peas	0	.	0	.	0	.	0	.
Bambaranuts	301	46	0	.	301	30	150	15
Field Peas	0	.	0	.	0	.	0	.
PULSESES	6,016	1,574	2,256	518	3,760	1,027	1,805	335
Sunflower	0	.	0	.	0	.	0	.
Simsim	0	.	0	.	0	.	0	.
Groundnut	0	.	0	.	150	15	0	.
Soya Beans	0	.	0	.	0	.	0	.
OIL SEEDS & OIL NUTS	0	.	0	.	150	15	0	.
Okra	0	.	0	.	0	.	0	.
Radish	0	.	0	.	0	.	0	.
Bitteer Aubergine	0	.	0	.	0	.	0	.
Onion	150	15	0	.	0	.	0	.
Ginger	0	.	0	.	0	.	0	.
Cabbage	301	46	0	.	150	15	0	.
Tomatoes	1,955	259	0	.	902	183	150	15
Spinach	0	.	0	.	0	.	0	.
Carrot	0	.	0	.	0	.	0	.
Chillies	150	10	0	.	0	.	0	.
Amaranths	0	.	0	.	0	.	0	.
Pumpkins	0	.	0	.	0	.	150	15
Cucumber	451	35	0	.	0	.	0	.
Egg Plant	0	.	0	.	0	.	0	.
Water Mellon	0	.	0	.	150	24	0	.
FRUITS & VEGETABLES	3,008	365	0	.	1,203	222	301	30
Cotton	3,158	2,192	752	426	150	15	0	.
Tobacco	0	.	0	.	0	.	0	.
CASH CROPS	3,158	2,192	752	426	150	15	0	.
Total	46,773	22,990	14,438	5,921	34,892	18,294	11,280	4,414

**5.6 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08
Short and Long Season - Bunda**

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	20,044	13,631	5,810	2,832	7,359	5,425	2,614	1,164
Paddy	1,356	960	387	294	387	314	0	.
Sorghum	7,553	6,310	3,195	2,125	2,808	2,286	1,259	1,049
Bulrush Millet	97	39	0	.	0	.	0	.
Finger Millet	1,743	946	678	314	871	745	775	284
CEREALS	30,792	21,886	10,070	5,565	11,426	8,769	4,648	2,497
Cassava	290	104	97	20	194	176	0	.
Sweet Potato	7,069	1,897	4,164	989	1,356	295	1,646	374
Irish potatoes	0	.	0	.	0	.	97	39
Yams	0	.	0	.	0	.	0	.
ROOTS & TUBERS	7,359	2,001	4,261	1,009	1,549	472	1,743	414
Mung Bean	0	.	0	.	0	.	97	20
Beans	3,680	893	1,743	301	871	153	871	120
Cowpeas	97	24	97	8	0	.	0	.
Green gram	0	.	0	.	0	.	0	.
Chick peas	97	78	0	.	387	490	97	39
Bambaranuts	97	24	0	.	0	.	0	.
Field Peas	0	.	0	.	0	.	0	.
PULSES	3,970	1,018	1,840	309	1,259	643	1,065	178
Sunflower	0	.	0	.	0	.	0	.
Simsim	0	.	0	.	0	.	0	.
Groundnut	387	100	97	8	194	74	97	16
Soya Beans	0	.	0	.	0	.	0	.
OIL SEEDS & OIL NUTS	387	100	97	8	194	74	97	16
Okra	97	118	0	.	194	157	0	.
Radish	0	.	0	.	97	118	0	.
Bitteer Aubergine	97	20	0	.	0	.	0	.
Onion	0	.	0	.	0	.	0	.
Ginger	97	24	0	.	0	.	0	.
Cabbage	290	127	0	.	97	10	0	.
Tomatoes	387	71	0	.	194	20	0	.
Spinach	0	.	0	.	0	.	0	.
Carrot	0	.	0	.	0	.	0	.
Chillies	97	20	0	.	0	.	0	.
Amaranths	0	.	0	.	0	.	0	.
Pumpkins	0	.	0	.	0	.	0	.
Cucumber	97	20	0	.	0	.	0	.
Egg Plant	97	10	0	.	97	10	0	.
Water Mellon	194	88	0	.	97	10	0	.
FRUITS & VEGETABLES	1,452	496	0	.	775	323	0	.
Cotton	5,035	4,881	2,033	1,494	4,551	4,430	1,065	902
Tobacco	0	.	0	.	194	196	0	.
CASH CROPS	5,035	4,881	2,033	1,494	4,745	4,626	1,065	902
Total	48,996	30,383	18,301	8,384	19,947	14,907	8,618	4,006

5.7 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08 Short and Long Season - Musoma Urban

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	0	.	0	.	17	2	34	5
Paddy	17	3	17	2	0	.	0	.
Sorghum	0	.	0	.	0	.	0	.
Bulrush Millet	0	.	0	.	0	.	0	.
Finger Millet	0	.	0	.	0	.	0	.
CEREALS	17	3	17	2	17	2	34	5
Cassava	0	.	17	3	0	.	17	2
Sweet Potato	136	29	340	48	102	24	238	38
Irish potatoes	0	.	0	.	0	.	0	.
Yams	0	.	0	.	0	.	0	.
ROOTS & TUBERS	136	29	356	52	102	24	255	40
Mung Bean	0	.	0	.	0	.	0	.
Beans	51	9	68	9	34	5	68	12
Cowpeas	0	.	0	.	0	.	0	.
Green gram	17	3	0	.	0	.	0	.
Chick peas	0	.	0	.	0	.	0	.
Bambaranuts	0	.	17	2	0	.	0	.
Field Peas	0	.	0	.	0	.	0	.
PULSES	68	12	85	10	34	5	68	12
Sunflower	0	.	0	.	0	.	0	.
Simsim	0	.	0	.	0	.	0	.
Groundnut	0	.	0	.	0	.	0	.
Soya Beans	0	.	0	.	0	.	0	.
OIL SEEDS & OIL NUTS	0	.	0	.	0	.	0	.
Okra	0	.	0	.	0	.	0	.
Radish	0	.	0	.	0	.	0	.
Bitteer Aubergine	0	.	0	.	0	.	0	.
Onion	0	.	0	.	0	.	0	.
Ginger	0	.	0	.	0	.	0	.
Cabbage	17	2	0	.	17	2	0	.
Tomatoes	17	3	34	5	17	2	17	3
Spinach	0	.	17	2	0	.	0	.
Carrot	0	.	0	.	0	.	0	.
Chillies	0	.	0	.	0	.	0	.
Amaranths	17	2	0	.	0	.	0	.
Pumpkins	0	.	0	.	0	.	0	.
Cucumber	0	.	0	.	0	.	0	.
Egg Plant	0	.	0	.	0	.	0	.
Water Mellon	0	.	0	.	0	.	0	.
FRUITS & VEGETABLES	51	7	51	7	34	3	17	3
Cotton	0	.	0	.	0	.	0	.
Tobacco	0	.	0	.	0	.	0	.
CASH CROPS	0	.	0	.	0	.	0	.
Total	272	52	509	70	187	34	373	60

5.8 Planted Area by Crop and Sex of Household members owning most of the crop for the agriculture year 2007/08 Short and Long Season - Rorya

Crop	SHORT RAINY SEASON				LONG RAINY SEASON			
	Male		Female		Male		Female	
	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area	No. of Hholds	Planted Area
Maize	13,501	9,813	3,182	1,605	11,781	6,960	3,956	1,558
Paddy	86	52	86	35	258	87	0	.
Sorghum	9,975	5,772	2,322	1,159	8,685	4,517	3,784	1,661
Bulrush Millet	0	.	0	.	0	.	0	.
Finger Millet	258	87	0	.	1,376	543	86	17
CEREALS	23,820	15,724	5,590	2,799	22,100	12,107	7,825	3,236
Cassava	0	.	0	.	258	174	0	.
Sweet Potato	1,376	308	1,290	285	1,032	327	1,032	294
Irish potatoes	0	.	0	.	86	14	0	.
Yams	0	.	86	35	0	.	86	35
ROOTS & TUBERS	1,376	308	1,376	320	1,376	515	1,118	329
Mung Bean	86	17	0	.	172	64	0	.
Beans	2,064	735	1,032	261	1,032	207	774	173
Cowpeas	172	56	86	28	0	.	0	.
Green gram	86	21	86	14	516	104	86	28
Chick peas	0	.	0	.	0	.	0	.
Bambaranuts	0	.	0	.	0	.	0	.
Field Peas	86	70	0	.	0	.	0	.
PULSESES	2,494	898	1,204	303	1,720	376	860	201
Sunflower	172	200	0	.	0	.	0	.
Simsim	0	.	0	.	0	.	0	.
Groundnut	258	80	86	21	86	17	344	35
Soya Beans	0	.	0	.	0	.	0	.
OIL SEEDS & OIL NUTS	430	280	86	21	86	17	344	35
Okra	86	70	0	.	0	.	0	.
Radish	0	.	0	.	0	.	0	.
Bitteer Aubergine	0	.	0	.	0	.	0	.
Onion	0	.	0	.	0	.	0	.
Ginger	0	.	0	.	0	.	0	.
Cabbage	0	.	0	.	0	.	0	.
Tomatoes	0	.	0	.	86	70	0	.
Spinach	0	.	0	.	0	.	0	.
Carrot	0	.	0	.	0	.	0	.
Chillies	0	.	0	.	0	.	0	.
Amaranths	0	.	0	.	0	.	0	.
Pumpkins	0	.	0	.	0	.	0	.
Cucumber	0	.	0	.	0	.	0	.
Egg Plant	0	.	0	.	0	.	0	.
Water Mellon	0	.	0	.	0	.	0	.
FRUITS & VEGETABLES	86	70	0	.	86	70	0	.
Cotton	0	.	0	.	0	.	0	.
Tobacco	0	.	0	.	0	.	0	.
CASH CROPS	0	.	0	.	0	.	0	.
Total	28,206	17,280	8,255	3,443	25,368	13,085	10,147	3,801

5.9 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Tarime District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Maize	37,660	83.8	7,280	16.2	44,940	100.0	33,180	84.0	6,300	16.0	39,480	100.0
Paddy	280	100.0	0	.0	280	100.0	280	100.0	0	.0	280	100.0
Sorghum	16,800	75.9	5,320	24.1	22,120	100.0	14,980	71.8	5,880	28.2	20,860	100.0
Bulrush Millet	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Finger Millet	3,220	74.2	1,120	25.8	4,340	100.0	4,200	73.2	1,540	26.8	5,740	100.0
CEREALS	57,960	80.9	13,720	19.1	71,680	100.0	52,640	79.3	13,720	20.7	66,360	100.0
Cassava	140	100.0	0	.0	140	100.0	0	.0	0	.0	0	.0
Sweet Potato	5,740	58.6	4,060	41.4	9,800	100.0	3,360	49.0	3,500	51.0	6,860	100.0
Irish potatoes	560	100.0	0	.0	560	100.0	420	100.0	0	.0	420	100.0
Yams	280	100.0	0	.0	280	100.0	140	50.0	140	50.0	280	100.0
ROOTS & TUBERS	6,720	62.3	4,060	37.7	10,780	100.0	3,920	51.9	3,640	48.1	7,560	100.0
Mung Bean	140	33.3	280	66.7	420	100.0	0	.0	0	.0	0	.0
Beans	9,520	79.1	2,520	20.9	12,040	100.0	6,300	84.9	1,120	15.1	7,420	100.0
Cowpeas	840	75.0	280	25.0	1,120	100.0	280	66.7	140	33.3	420	100.0
Green gram	0	.0	0	.0	0	.0	280	100.0	0	.0	280	100.0
Chick peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Bambaranuts	0	.0	0	.0	0	.0	0	.0	140	100.0	140	100.0
Field Peas	140	100.0	0	.0	140	100.0	0	.0	0	.0	0	.0
PULSES	10,640	77.6	3,080	22.4	13,720	100.0	6,860	83.1	1,400	16.9	8,260	100.0
Sunflower	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Simsim	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Groundnut	980	87.5	140	12.5	1,120	100.0	840	100.0	0	.0	840	100.0
Soya Beans	140	100.0	0	.0	140	100.0	280	100.0	0	.0	280	100.0
OIL SEEDS & OIL NUTS	1,120	88.9	140	11.1	1,260	100.0	1,120	100.0	0	.0	1,120	100.0

...cont 5.9 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Tarime District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Okra	140	100.0	0	0.0	140	100.0	0	0.0	0	0.0	0	0.0
Radish	140	100.0	0	0.0	140	100.0	0	0.0	0	0.0	0	0.0
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Onion	140	50.0	140	50.0	280	100.0	280	100.0	0	0.0	280	100.0
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cabbage	280	66.7	140	33.3	420	100.0	140	100.0	0	0.0	140	100.0
Tomatoes	420	60.0	280	40.0	700	100.0	280	100.0	0	0.0	280	100.0
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	140	100.0	140	100.0
Carrot	140	100.0	0	0.0	140	100.0	140	100.0	0	0.0	140	100.0
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Amaranths	0	0.0	140	100.0	140	100.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cucumber	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Egg Plant	0	0.0	140	100.0	140	100.0	0	0.0	0	0.0	0	0.0
Water Mellon	140	100.0	0	0.0	140	100.0	140	100.0	0	0.0	140	100.0
FRUITS & VEGETABLES	1,400	62.5	840	37.5	2,240	100.0	980	87.5	140	12.5	1,120	100.0
Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tobacco	280	100.0	0	0.0	280	100.0	0	0.0	0	0.0	0	0.0
CASH CROPS	280	100.0	0	0.0	280	100.0	0	0.0	0	0.0	0	0.0
Total	78,120	78.2	21,840	21.8	99,960	100.0	65,520	77.6	18,900	22.4	84,420	100.0

5.10 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Serengeti District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Maize	17,030	77.0	5,083	23.0	22,113	100.0	16,606	79.4	4,321	20.6	20,927	100.0
Paddy	424	100.0	0	.0	424	100.0	847	71.4	339	28.6	1,186	100.0
Sorghum	15,505	74.1	5,422	25.9	20,927	100.0	12,285	74.4	4,236	25.6	16,521	100.0
Bulrush Millet	0	.0	0	.0	0	.0	85	100.0	0	.0	85	100.0
Finger Millet	3,389	66.7	1,694	33.3	5,083	100.0	4,152	79.0	1,101	21.0	5,253	100.0
CEREALS	36,347	74.9	12,200	25.1	48,547	100.0	33,975	77.3	9,998	22.7	43,972	100.0
Cassava	0	.0	0	.0	0	.0	169	50.0	169	50.0	339	100.0
Sweet Potato	3,813	64.3	2,118	35.7	5,931	100.0	1,525	52.9	1,356	47.1	2,881	100.0
Irish potatoes	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Yams	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
ROOTS & TUBERS	3,813	64.3	2,118	35.7	5,931	100.0	1,694	52.6	1,525	47.4	3,220	100.0
Mung Bean	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Beans	2,118	73.5	763	26.5	2,881	100.0	2,372	77.8	678	22.2	3,050	100.0
Cowpeas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Green gram	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Chick peas	0	.0	85	100.0	85	100.0	0	.0	0	.0	0	.0
Bambaranuts	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Field Peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
PULSES	2,118	71.4	847	28.6	2,965	100.0	2,372	77.8	678	22.2	3,050	100.0
Sunflower	254	100.0	0	.0	254	100.0	85	100.0	0	.0	85	100.0
Simsim	169	66.7	85	33.3	254	100.0	169	66.7	85	33.3	254	100.0
Groundnut	763	75.0	254	25.0	1,017	100.0	254	100.0	0	.0	254	100.0
Soya Beans	0	.0	85	100.0	85	100.0	0	.0	0	.0	0	.0
OIL SEEDS & OIL NUTS	1,186	73.7	424	26.3	1,610	100.0	508	85.7	85	14.3	593	100.0

...cont 5.10: Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Serengeti District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Okra	0	0.0	0	0.0	0	0.0	0	0.0	85	100.0	85	100.0
Radish	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Onion	254	100.0	0	0.0	254	100.0	254	60.0	169	40.0	424	100.0
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cabbage	0	0.0	0	0.0	0	0.0	85	100.0	0	0.0	85	100.0
Tomatoes	339	100.0	0	0.0	339	100.0	169	50.0	169	50.0	339	100.0
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	85	50.0	85	50.0	169	100.0
Cucumber	0	0.0	0	0.0	0	0.0	85	100.0	0	0.0	85	100.0
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Water Mellon	339	100.0	0	0.0	339	100.0	85	100.0	0	0.0	85	100.0
FRUITS & VEGETABLES	932	100.0	0	0.0	932	100.0	763	60.0	508	40.0	1,271	100.0
Cotton	3,643	93.5	254	6.5	3,897	100.0	508	100.0	0	0.0	508	100.0
Tobacco	1,440	89.5	169	10.5	1,610	100.0	169	100.0	0	0.0	169	100.0
CASH CROPS	5,083	92.3	424	7.7	5,507	100.0	678	100.0	0	0.0	678	100.0
Total	49,479	75.5	16,013	24.5	65,492	100.0	39,990	75.8	12,793	24.2	52,784	100.0

5.11 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Musoma Rural District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Maize	14,739	80.3	3,610	19.7	18,348	100.0	15,040	84.0	2,858	16.0	17,897	100.0
Paddy	1,504	66.7	752	33.3	2,256	100.0	2,858	65.5	1,504	34.5	4,361	100.0
Sorghum	7,971	74.6	2,707	25.4	10,678	100.0	7,520	80.6	1,805	19.4	9,325	100.0
Bulrush Millet	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Finger Millet	602	66.7	301	33.3	902	100.0	902	85.7	150	14.3	1,053	100.0
CEREALS	24,815	77.1	7,369	22.9	32,185	100.0	26,319	80.6	6,317	19.4	32,636	100.0
Cassava	301	100.0	0	.0	301	100.0	451	100.0	0	.0	451	100.0
Sweet Potato	9,325	69.7	4,061	30.3	13,385	100.0	2,707	48.6	2,858	51.4	5,565	100.0
Irish potatoes	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Yams	150	100.0	0	.0	150	100.0	150	100.0	0	.0	150	100.0
ROOTS & TUBERS	9,776	70.7	4,061	29.3	13,836	100.0	3,309	53.7	2,858	46.3	6,166	100.0
Mung Bean	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Beans	5,715	71.7	2,256	28.3	7,971	100.0	3,459	69.7	1,504	30.3	4,963	100.0
Cowpeas	0	.0	0	.0	0	.0	0	.0	150	100.0	150	100.0
Green gram	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Chick peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Bambaranuts	301	100.0	0	.0	301	100.0	301	66.7	150	33.3	451	100.0
Field Peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
PULSES	6,016	72.7	2,256	27.3	8,272	100.0	3,760	67.6	1,805	32.4	5,565	100.0
Sunflower	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Simsim	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Groundnut	0	.0	0	.0	0	.0	150	100.0	0	.0	150	100.0
Soya Beans	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
OIL SEEDS & OIL NUTS	0	.0	0	.0	0	.0	150	100.0	0	.0	150	100.0

..cont 5.11: Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season – Musoma Rural District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Okra	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Radish	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Onion	150	100.0	0	0.0	150	100.0	0	0.0	0	0.0	0	0.0
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cabbage	301	100.0	0	0.0	301	100.0	150	100.0	0	0.0	150	100.0
Tomatoes	1,955	100.0	0	0.0	1,955	100.0	902	85.7	150	14.3	1,053	100.0
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chillies	150	100.0	0	0.0	150	100.0	0	0.0	0	0.0	0	0.0
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	150	100.0	150	100.0
Cucumber	451	100.0	0	0.0	451	100.0	0	0.0	0	0.0	0	0.0
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Water Mellon	0	0.0	0	0.0	0	0.0	150	100.0	0	0.0	150	100.0
FRUITS & VEGETABLES	3,008	100.0	0	0.0	3,008	100.0	1,203	80.0	301	20.0	1,504	100.0
Cotton	3,158	80.8	752	19.2	3,910	100.0	150	100.0	0	0.0	150	100.0
Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
CASH CROPS	3,158	80.8	752	19.2	3,910	100.0	150	100.0	0	0.0	150	100.0
Total	46,773	76.4	14,438	23.6	61,211	100.0	34,892	75.6	11,280	24.4	46,172	100.0

5.12 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season – Bunda District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Maize	20,044	77.5	5,810	22.5	25,854	100.0	7,359	73.8	2,614	26.2	9,974	100.0
Paddy	1,356	77.8	387	22.2	1,743	100.0	387	100.0	0	.0	387	100.0
Sorghum	7,553	70.3	3,195	29.7	10,748	100.0	2,808	69.0	1,259	31.0	4,067	100.0
Bulrush Millet	97	100.0	0	.0	97	100.0	0	.0	0	.0	0	.0
Finger Millet	1,743	72.0	678	28.0	2,421	100.0	871	52.9	775	47.1	1,646	100.0
CEREALS	30,792	75.4	10,070	24.6	40,862	100.0	11,426	71.1	4,648	28.9	16,074	100.0
Cassava	290	75.0	97	25.0	387	100.0	194	100.0	0	.0	194	100.0
Sweet Potato	7,069	62.9	4,164	37.1	11,232	100.0	1,356	45.2	1,646	54.8	3,002	100.0
Irish potatoes	0	.0	0	.0	0	.0	0	.0	97	100.0	97	100.0
Yams	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
ROOTS & TUBERS	7,359	63.3	4,261	36.7	11,620	100.0	1,549	47.1	1,743	52.9	3,292	100.0
Mung Bean	0	.0	0	.0	0	.0	0	.0	97	100.0	97	100.0
Beans	3,680	67.9	1,743	32.1	5,422	100.0	871	50.0	871	50.0	1,743	100.0
Cowpeas	97	50.0	97	50.0	194	100.0	0	.0	0	.0	0	.0
Green gram	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Chick peas	97	100.0	0	.0	97	100.0	387	80.0	97	20.0	484	100.0
Bambaranuts	97	100.0	0	.0	97	100.0	0	.0	0	.0	0	.0
Field Peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
PULSES	3,970	68.3	1,840	31.7	5,810	100.0	1,259	54.2	1,065	45.8	2,324	100.0
Sunflower	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Simsim	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Groundnut	387	80.0	97	20.0	484	100.0	194	66.7	97	33.3	290	100.0
Soya Beans	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
OIL SEEDS & OIL NUTS	387	80.0	97	20.0	484	100.0	194	66.7	97	33.3	290	100.0

..cont 5.12 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season – Bunda District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Okra	97	100.0	0	0.0	97	100.0	194	100.0	0	0.0	194	100.0
Radish	0	0.0	0	0.0	0	0.0	97	100.0	0	0.0	97	100.0
Bitteer Aubergine	97	100.0	0	0.0	97	100.0	0	0.0	0	0.0	0	0.0
Onion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ginger	97	100.0	0	0.0	97	100.0	0	0.0	0	0.0	0	0.0
Cabbage	290	100.0	0	0.0	290	100.0	97	100.0	0	0.0	97	100.0
Tomatoes	387	100.0	0	0.0	387	100.0	194	100.0	0	0.0	194	100.0
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chillies	97	100.0	0	0.0	97	100.0	0	0.0	0	0.0	0	0.0
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cucumber	97	100.0	0	0.0	97	100.0	0	0.0	0	0.0	0	0.0
Egg Plant	97	100.0	0	0.0	97	100.0	97	100.0	0	0.0	97	100.0
Water Mellon	194	100.0	0	0.0	194	100.0	97	100.0	0	0.0	97	100.0
FRUITS & VEGETABLES	1,452	100.0	0	0.0	1,452	100.0	775	100.0	0	0.0	775	100.0
Cotton	5,035	71.2	2,033	28.8	7,069	100.0	4,551	81.0	1,065	19.0	5,616	100.0
Tobacco	0	0.0	0	0.0	0	0.0	194	100.0	0	0.0	194	100.0
CASH CROPS	5,035	71.2	2,033	28.8	7,069	100.0	4,745	81.7	1,065	18.3	5,810	100.0
Total	48,996	72.8	18,301	27.2	67,297	100.0	19,947	69.8	8,618	30.2	28,565	100.0

**5.13 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08
Short and Long Season - Musoma Urban District**

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Maize	0	.0	0	.0	0	.0	17	33.3	34	66.7	51	100.0
Paddy	17	50.0	17	50.0	34	100.0	0	.0	0	.0	0	.0
Sorghum	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Bulrush Millet	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Finger Millet	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
CEREALS	17	50.0	17	50.0	34	100.0	17	33.3	34	66.7	51	100.0
Cassava	0	.0	17	100.0	17	100.0	0	.0	17	100.0	17	100.0
Sweet Potato	136	28.6	340	71.4	475	100.0	102	30.0	238	70.0	340	100.0
Irish potatoes	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Yams	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
ROOTS & TUBERS	136	27.6	356	72.4	492	100.0	102	28.6	255	71.4	356	100.0
Mung Bean	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Beans	51	42.9	68	57.1	119	100.0	34	33.3	68	66.7	102	100.0
Cowpeas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Green gram	17	100.0	0	.0	17	100.0	0	.0	0	.0	0	.0
Chick peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Bambaranuts	0	.0	17	100.0	17	100.0	0	.0	0	.0	0	.0
Field Peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
PULSES	68	44.4	85	55.6	153	100.0	34	33.3	68	66.7	102	100.0
Sunflower	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Simsim	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Groundnut	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Soya Beans	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
OIL SEEDS & OIL NUTS	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0

**..cont 5.13 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08
Short and Long Season - Musoma Urban District**

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Okra	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Radish	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Onion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cabbage	17	100.0	0	0.0	17	100.0	17	100.0	0	0.0	17	100.0
Tomatoes	17	33.3	34	66.7	51	100.0	17	50.0	17	50.0	34	100.0
Spinach	0	0.0	17	100.0	17	100.0	0	0.0	0	0.0	0	0.0
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Amaranths	17	100.0	0	0.0	17	100.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cucumber	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Water Mellon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FRUITS & VEGETABLES	51	50.0	51	50.0	102	100.0	34	66.7	17	33.3	51	100.0
Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
CASH CROPS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	272	34.8	509	65.2	781	100.0	187	33.3	373	66.7	560	100.0

5.14 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Rorya District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Maize	13,501	80.9	3,182	19.1	16,683	100.0	11,781	74.9	3,956	25.1	15,737	100.0
Paddy	86	50.0	86	50.0	172	100.0	258	100.0	0	.0	258	100.0
Sorghum	9,975	81.1	2,322	18.9	12,297	100.0	8,685	69.7	3,784	30.3	12,469	100.0
Bulrush Millet	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Finger Millet	258	100.0	0	.0	258	100.0	1,376	94.1	86	5.9	1,462	100.0
CEREALS	23,820	81.0	5,590	19.0	29,410	100.0	22,100	73.9	7,825	26.1	29,926	100.0
Cassava	0	.0	0	.0	0	.0	258	100.0	0	.0	258	100.0
Sweet Potato	1,376	51.6	1,290	48.4	2,666	100.0	1,032	50.0	1,032	50.0	2,064	100.0
Irish potatoes	0	.0	0	.0	0	.0	86	100.0	0	.0	86	100.0
Yams	0	.0	86	100.0	86	100.0	0	.0	86	100.0	86	100.0
ROOTS & TUBERS	1,376	50.0	1,376	50.0	2,752	100.0	1,376	55.2	1,118	44.8	2,494	100.0
Mung Bean	86	100.0	0	.0	86	100.0	172	100.0	0	.0	172	100.0
Beans	2,064	66.7	1,032	33.3	3,096	100.0	1,032	57.1	774	42.9	1,806	100.0
Cowpeas	172	66.7	86	33.3	258	100.0	0	.0	0	.0	0	.0
Green gram	86	50.0	86	50.0	172	100.0	516	85.7	86	14.3	602	100.0
Chick peas	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Bambaranuts	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Field Peas	86	100.0	0	.0	86	100.0	0	.0	0	.0	0	.0
PULSESES	2,494	67.4	1,204	32.6	3,698	100.0	1,720	66.7	860	33.3	2,580	100.0
Sunflower	172	100.0	0	.0	172	100.0	0	.0	0	.0	0	.0
Simsim	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Groundnut	258	75.0	86	25.0	344	100.0	86	20.0	344	80.0	430	100.0
Soya Beans	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
OIL SEEDS & OIL NUTS	430	83.3	86	16.7	516	100.0	86	20.0	344	80.0	430	100.0

...cont 5.14 Number of Household members owning most of the crop by Sex of the Main Owner and Crop for the agriculture year 2007/08 Short and Long Season - Rorya District

Crop	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %	Number	Row N %
Okra	86	100.0	0	0.0	86	100.0	0	0.0	0	0.0	0	0.0
Radish	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Onion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cabbage	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tomatoes	0	0.0	0	0.0	0	0.0	86	100.0	0	0.0	86	100.0
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cucumber	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Water Mellon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FRUITS & VEGETABLES	86	100.0	0	0.0	86	100.0	86	100.0	0	0.0	86	100.0
Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
CASH CROPS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	28,206	77.4	8,255	22.6	36,461	100.0	25,368	71.4	10,147	28.6	35,515	100.0

CROP PRODUCTION BY DISTRICT

5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Maize				Paddy				Sorghum				Bulrush Millet			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	84,420	50,907	124,813	2.45	560	510	882	1.73	42,980	18,164	28,416	1.56	0	.	.	.
Serengeti	43,040	28,597	48,848	1.71	1,610	866	1,666	1.92	37,448	18,362	23,827	1.30	85	274	169	0.62
Musoma Rural	36,245	24,166	33,213	1.37	6,617	2,543	4,806	1.89	20,003	12,211	17,097	1.40	0	.	.	.
Bunda	35,827	23,053	23,468	1.02	2,130	1,568	2,011	1.28	14,815	11,769	10,500	0.89	97	39	44	1.11
Musoma Urban	51	7	12	1.70	34	5	9	1.68	0	.	.	.	0	.	.	.
Rorya	32,419	19,935	26,198	1.31	430	174	244	1.40	24,766	13,109	12,855	0.98	0	.	.	.
Total	232,003	146,664	256,552	1.75	11,381	5,666	9,618	1.70	140,012	73,615	92,695	1.26	182	314	213	0.68

...Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Finger Millet				Cassava				Sweet potatoes				Irish potatoes			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	10,080	2,990	4,403	1.47	13,440	6,275	19,799	3.2	16,660	6,374	23,412	3.67	980	170	500	2.94
Serengeti	10,336	4,118	3,902	0.95	16,521	10,709	6,836	0.6	8,811	1,928	2,706	1.40	0	.	.	.
Musoma Rural	1,955	792	679	0.86	52,939	44,328	81,033	1.8	18,950	4,915	12,591	2.56	0	.	.	.
Bunda	4,067	2,289	1,169	0.51	24,304	20,589	35,606	1.7	14,234	3,556	3,585	1.01	97	39	194	4.94
Musoma Urban	0	.	.	.	798	480	970	2.0	815	139	218	1.57	0	.	.	.
Rorya	1,720	648	310	0.48	20,380	13,900	33,163	2.4	4,730	1,215	2,065	1.70	86	14	118	8.50
Total	28,158	10,836	10,463	0.97	128,383	96,281	177,408	1.8	64,200	18,127	44,578	2.46	1,163	223	812	3.64

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Yams				Mung bean				Beans				Cow peas			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	560	170	352	2.07	420	227	1,050	4.63	19,460	5,633	13,942	2.48	1,540	453	548	1.21
Serengeti	0	.	.	.	0	.	.	.	5,931	1,857	1,683	0.91	0	.	.	.
Musoma Rural	301	30	98	3.21	0	.	.	.	12,934	3,347	2,238	0.67	150	15	6	0.40
Bunda	0	.	.	.	97	20	22	1.14	7,165	1,467	641	0.44	194	31	11	0.35
Musoma Urban	0	.	.	.	0	.	.	.	221	34	16	0.46	0	.	.	.
Rorya	172	70	42	0.60	258	82	11	0.13	4,902	1,376	1,641	1.19	258	84	29	0.35
Total	1,033	270	491	1.82	775	328	1,083	3.30	50,612	13,715	20,160	1.47	2,142	584	594	1.02

... Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Green gram				Chick peas				Bambaranuts				Field Peas			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	280	57	212	3.73	0	.	.	.	140	28	56	1.98	140	28	42	1.50
Serengeti	0	.	.	.	85	17	3	0.20	0	.	.	.	0	.	.	.
Musoma Rural	0	.	.	.	0	.	.	.	752	91	120	1.32	0	.	.	.
Bunda	0	.	.	.	581	608	510	0.84	97	24	5	0.23	0	.	.	.
Musoma Urban	17	3	1	0.30	0	.	.	.	17	2	0	0.25	0	.	.	.
Rorya	774	167	68	0.41	0	.	.	.	0	.	.	.	86	70	69	0.99
Total	1,071	227	281	1.24	666	625	514	0.82	1,006	145	182	1.26	226	98	111	1.14

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Sunflower				Simsim				Groundnuts				Soyabeans			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	0	.	.	.	0	.	.	.	1,960	666	1,077	1.62	420	85	169	1.99
Serengeti	339	326	186	0.57	508	175	43	0.25	1,271	310	107	0.34	85	34	51	1.48
Musoma Rural	0	.	.	.	0	.	.	.	150	15	32	2.12	0	.	.	.
Bunda	0	.	.	.	0	.	.	.	775	198	98	0.50	0	.	.	.
Musoma Urban	0	.	.	.	0	.	.	.	0
Rorya	172	200	120	0.60	0	.	.	.	774	153	198	1.29
Total	511	526	306	0.58	508	175	43	0.25	4,930	1,343	1,511	1.13	505	119	220	1.84

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Cabbage				Tomatoes				Spinach	Carrot						
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	560	113	547	4.83	980	241	9,013	37.41	140	14	14	0.99	280	57	216	3.80
Serengeti	85	9	212	24.70	678	111	1,635	14.67	0	.	.	.	0	.	.	.
Musoma Rural	451	61	737	12.10	3,008	457	6,874	15.05	0	.	.	.	0	.	.	.
Bunda	387	137	146	1.07	581	90	518	5.74	0	.	.	.	0	.	.	.
Musoma Urban	34	3	37	10.87	85	14	553	40.26	17	2	12	6.92	0	.	.	.
Rorya	0	.	.	.	86	70	2,322	33.35	0	.	.	.	0	.	.	.
Total	1,517	323	1,680	5.19	5,418	983	20,914	21.29	157	16	26	1.63	280	57	216	3.80

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Chillies				Amaranths				Pumpkins				Cucumber			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	0	.	.	.	140	57	105	1.85	0	.	.	.	0	.	.	.
Serengeti	0	.	.	.	0	.	.	.	169	17	322	18.77	85	9	34	3.95
Musoma Rural	150	10	36	3.49	0	.	.	.	150	15	105	6.92	451	35	114	3.24
Bunda	97	20	10	0.49	0	.	.	.	0	.	.	.	97	20	19	0.99
Musoma Urban	0	.	.	.	17	2	7	3.95	0	.	.	.	0	.	.	.
Rorya	0
Total	247	30	46	1.53	157	58	112	1.91	320	32	427	13.20	633	63	168	2.64

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Eggplant				Watermelon				Onion				Ginger			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	140	57	196	3.46	280	453	840	1.85	560	113	319	2.81	0	.	.	.
Serengeti	0	.	.	.	424	206	1,351	6.57	678	77	332	4.30	0	.	.	.
Musoma Rural	0	.	.	.	150	24	305	12.50	150	15	92	6.08	0	.	.	.
Bunda	194	20	48	2.47	290	98	339	3.46	0	.	.	.	97	24	5	0.20
Musoma Urban	0	.	.	.	0	.	.	.	0	.	.	.	0	.	.	.
Rorya	0	.	.	.	0	.	.	.	0	.	.	.	0	.	.	.
Total	334	76	244	3.20	1,145	782	2,835	3.63	1,388	206	743	3.61	97	24	5	0.20

Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Okra				Radish				Bitteer Aubergine				Cotton			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons /ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	140	28	280	9.88	140	28	140	4.94	0	.	.	.	0	.	.	.
Serengeti	85	9	6	0.69	0	.	.	.	0	.	.	.	4,406	4,295	3,969	0.92
Musoma Rural	0	.	.	.	0	.	.	.	0	.	.	.	4,061	2,633	2,693	1.02
Bunda	290	274	160	0.58	97	118	131	1.11	97	20	39	1.98	12,685	11,706	12,595	1.08
Musoma Urban	0	.	.	.	0	.	.	.	0
Rorya	86	70	77	1.11	0	.	.	.	0
Total	601	381	523	1.37	237	146	271	1.85	97	20	39	1.98	21,151	18,634	19,257	1.03

... Cont 5.15 Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short and Long Rainy SEASON Agricultural Year 2007/08

District	Tobacco			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tarime	280	113	140	1.24
Serengeti	1,779	858	780	0.91
Musoma Rural	0	.	.	.
Bunda	194	196	257	1.31
Musoma Urban
Rorya
Total	2,253	1,167	1,177	1.01

CROP PRODUCTION GENERAL

5.16 TOTAL: Number of Crop Growing Households and Area Planted (ha) by Season and District

District	Short Rainy Season		Long Rainy Season		Total area planted (hectare)	% Area planted in short rainy season
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)		
Tarime	48,580	45,750	45,780	42,100	87,851	52.08
Serengeti	29,061	35,943	26,265	26,555	62,497	57.51
Musoma Rural	37,900	28,912	30,230	22,709	51,621	56.01
Bunda	35,053	38,767	15,783	18,914	57,681	67.21
Musoma Urban	543	122	390	94	216	56.35
Rorya	17,629	20,723	18,661	16,886	37,610	55.10
Total	168,765	170,217	137,108	127,258	297,475	57.22

5.17: Number of crop growing Households Planting Crops by Season and District

District	Short Rainy Season		Long Rainy Season		Total Number of Crop Growing households
	Number of households Growing Crops	Number of households NOT Growing Crops	Number of households Growing Crops	Number of households NOT Growing Crops	
Tarime	48,580	8,120	45,780	10,920	56,700
Serengeti	29,061	5,253	26,265	8,049	34,314
Musoma Rural	37,900	23,011	30,230	30,681	60,910
Bunda	35,053	4,164	15,783	23,433	39,216
Musoma Urban	543	221	390	373	764
Rorya	17,629	17,199	18,661	16,167	34,827
Total	168,765	57,967	137,108	89,623	226,731

5.18 Number of Agriculture Households by Area Planted (ha) and Crop for the Agriculture year 2007/08 Short and Long Season

Crop	SHORT RAINY		LONG RAINY		SHORT & LONG SEASON	
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)
Maize	127,938	81,917	104,065	64,747	232,003	146,664
Paddy	4,908	2,946	6,473	2,720	11,381	5,666
Sorghum	76,770	40,647	63,242	32,968	140,012	73,615
Bulrush Millet	97	39	85	274	182	314
Finger Millet	13,005	5,114	15,154	5,722	28,158	10,836
CEREALS	222,718	130,662	189,018	106,432	411,736	237,094
Cassava	845	408	128,383	96,281	128,383	96,281
Sweet Potato	43,489	12,266	20,710	5,861	64,200	18,127
Irish potatoes	560	113	603	110	1,163	223
Yams	516	135	516	135	1,033	270
ROOTS & TUBERS	45,411	12,922	150,213	102,386	194,779	114,901
Mung Bean	506	244	269	84	775	328
Beans	31,529	8,511	19,084	5,203	50,612	13,715
Cowpeas	1,572	483	570	100	2,142	584
Green gram	189	38	882	189	1,071	227
Chick peas	182	96	484	529	666	625
Bambaranuts	415	71	591	74	1,006	145
Field Peas	226	98	-	-	226	98
PULSES	34,617	9,542	21,880	6,180	56,498	15,722
Sunflower	426	457	85	69	511	526
Simsim	254	77	254	98	508	175
Groundnut	2,965	825	1,965	518	4,930	1,343
Soya Beans	225	63	280	57	505	119
OIL SEEDS & OIL NUTS	3,870	1,422	2,584	741	6,454	2,163
Okra	323	216	278	165	601	381
Radish	140	28	97	118	237	146
Bitteer Aubergine	97	20	-	-	97	20
Onion	685	112	704	94	1,388	206
Ginger	97	24	-	-	97	24
Cabbage	1,028	274	489	49	1,517	323
Tomatoes	3,432	585	1,985	397	5,418	983
Spinach	17	2	140	14	157	16
Carrot	140	28	140	28	280	57
Chillies	247	30	-	-	247	30
Amaranths	157	58	-	-	157	58
Pumpkins	-	-	320	32	320	32
Cucumber	548	55	85	9	633	63
Egg Plant	237	66	97	10	334	76
Water Mellon	673	452	472	329	1,145	782
FRUITS & VEGETABLES	7,820	1,950	4,806	1,247	12,627	3,197
Cotton	14,876	12,869	6,275	5,765	21,151	18,634
Tobacco	1,890	851	363	316	2,253	1,167
CASH CROPS	16,766	13,719	6,638	6,081	23,404	19,801
Total		170,217		127,258		297,475

5.19 Area planted (ha) and Quantity Harvested by Season and Crop for the 2007/08 agriculture year -

Crop	SHORT RAINY			LONG RAINY			SHORT & LONG RAINY SEASON		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Maize	81,917	139,568	1.7	64,747	116,984	1.8	146,664	256,552	1.7
Paddy	2,946	3,674	1.2	2,720	5,944	2.2	5,666	9,618	1.7
Sorghum	40,647	51,642	1.3	32,968	41,052	1.2	73,615	92,695	1.3
Bulrush Millet	39	44	1.1	274	169	0.6	314	213	0.7
Finger Millet	5,114	4,466	0.9	5,722	5,997	1.0	10,836	10,463	1.0
CEREALS	130,662	199,394	1.5	106,432	170,146	1.6	237,094	369,540	1.6
Cassava	408	758	1.9	471	370	0.8	879	1,127	1.3
Sweet Potato	12,266	26,633	2.2	5,861	17,945	3.1	18,127	44,578	2.5
Irish potatoes	113	267	2.4	110	544	5.0	223	812	3.6
Yams	135	341	2.5	135	150.01	1.1	270	491	1.8
ROOTS & TUBERS	12,922	27,999	2.2	6,577	19,009	2.9	19,499	47,008	2.4
Mung Bean	244	1,059	4.3	84	25	0.3	328	1,083	3.3
Beans	8,511	11,433	1.3	5,203	8,728	1.7	13,715	20,160	1.5
Cowpeas	483	440	0.9	100	154	1.5	584	594	1.0
Green gram	38	13	0.3	189	268	1.4	227	281	1.2
Chick peas	96	21	0.2	529	493	0.9	625	514	0.8
Bambaranuts	71	88	1.2	74	94	1.3	145	182	1.3
Field Peas	98	111	1.1	.	.	.	98	111	1.1
PULSES	9,542	13,165	1.4	6,180	9,761	1.6	15,722	22,925	1.5
Sunflower	457	242	0.5	69	64	0.9	526	306	0.6
Simsim	77	10	0.1	98	33	0.3	175	43	0.2
Groundnut	825	1,019	1.2	518	492	1.0	1,343	1,511	1.1
Soya Beans	63	122	1.9	57	98	1.7	119	220	1.8
OIL SEEDS & OIL NUTS	1,422	1,393	1.0	741	687	0.9	2,163	2,080	1.0
Okra	216	362	1.7	165	161	1.0	381	523	1.4
Radish	28	140	4.9	118	131	1.1	146	271	1.9
Bitteer Aubergine	20	39	2.0	.	.	.	20	39	2.0
Onion	112	440	3.9	94	303	3.2	206	743	3.6
Ginger	24	5	0.2	.	.	.	24	5	0.2
Cabbage	274	1,339	4.9	49	341	6.9	323	1,680	5.2
Tomatoes	585	11,332	19.4	397	9,582	24.1	983	20,914	21.3
Spinach	2	12	6.9	14	14	1.0	16	26	1.6
Carrot	28	92	3.3	28	123	4.3	57	216	3.8
Chillies	30	46	1.5	.	.	.	30	46	1.5
Amaranths	58	112	1.9	.	.	.	58	112	1.9
Pumpkins	.	.	.	32	427	13.2	32	427	13.2
Cucumber	55	134	2.4	9	34	4.0	63	168	2.6
Egg Plant	66	206	3.1	10	39	4.0	76	244	3.2
Water Mellon	452	1,430	3.2	329	1,405	4.3	782	2,835	3.6
FRUITS & VEGETABLES	1,950	15,688	8.0	1,247	12,559	10.1	3,197	28,247	8.8
Cotton	12,869	12,655	1.0	5,765	6,601	1.1	18,634	19,257	1.0
Tobacco	851	742	0.9	316	435	1.4	1,167	1,177	1.0
CASH CROPS	13,719	13,397	1.0	6,081	7,036	1.2	19,801	20,433	1.0
Total	170,217	271,036	1.6	127,258	219,197	1.7	297,475	490,233	1.6

CROP STORAGE AND MARKETING

5.20 Number of households Storing Crops Season and District

District	SHORT RAINY SEASON					LONG RAINY SEASON					SHORT & LONG SEASON				
	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total
Tarime	46,900	97	1,680	3	48,580	43,680	95	2,100	5	45,780	90,580	96	3,780	4	94,360
Serengeti	26,180	90	2,881	10	29,061	25,587	97	678	3	26,265	51,767	94	3,558	6	55,325
Musoma Rural	33,238	88	4,662	12	37,900	28,124	93	2,106	7	30,230	61,362	90	6,768	10	68,129
Bunda	31,373	90	3,680	10	35,053	12,201	77	3,583	23	15,783	43,574	86	7,262	14	50,836
Musoma Urban	475	88	68	13	543	390	100	0	0	390	866	93	68	7	934
Rorya	17,113	97	516	3	17,629	18,403	99	258	1	18,661	35,515	98	774	2	36,289
Total	155,278	92	13,486	8	168,765	128,384	94	8,724	6	137,108	283,663	93	22,210	7	305,873

5.21 Number of Crop Producing Households Reporting Selling Agricultural Produce During 2007/08 by District and Season

District	SHORT RAINY SEASON					LONG RAINY SEASON				
	Number of households that sold	%	Number of households that did not sell	%	Total number of households	Number of households that sold	%	Number of households that did not sell	%	Total number of households
Tarime	45,780	94	2,800	6	48,580	40,460	88	5,320	12	45,780
Serengeti	21,690	75	7,371	25	29,061	18,724	71	7,541	29	26,265
Musoma Rural	25,116	66	12,784	34	37,900	21,958	73	8,272	27	30,230
Bunda	21,496	61	13,556	39	35,053	10,651	67	5,132	33	15,783
Musoma Urban	373	69	170	31	543	238	61	153	39	390
Rorya	7,567	43	10,061	57	17,629	10,749	58	7,911	42	18,661
Total	122,023	72	46,742	28	168,765	102,780	75	34,328	25	137,108

5.22 Number of households storing Crops by Method of Storage and Crop Type Short Rainy Season - MARA

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Maize	81,157	63.4	2,871	2.2	0	0.0	37,587	29.4	182	0.1	387	0.3	5,755	4.5	0	0.0	127,938	100
Paddy	1,360	27.7	97	2.0	0	0.0	3,107	63.3	0	0.0	0	0.0	344	7.0	0	0.0	4,908	100
Sorghum	56,904	74.1	656	0.9	0	0.0	16,089	21.0	0	0.0	0	0.0	2,981	3.9	140	0.2	76,770	100
Bulrush Millet	0	0.0	0	0.0	0	0.0	97	100.0	0	0.0	0	0.0	0	0.0	0	0.0	97	100
Finger Millet	8,067	62.0	140	1.1	0	0.0	2,804	21.6	97	0.7	0	0.0	1,897	14.6	0	0.0	13,005	100
CEREALS	147,488	66.2	3,764	1.7	0	0.0	59,684	26.8	278	0.1	387	0.2	10,977	4.9	140	0.1	222,718	100
Cassava	334	39.5	97	11.5	0	0.0	301	35.6	0	0.0	0	0.0	114	13.5	0	0.0	845	100
Sweet Potato	12,391	28.5	1,141	2.6	97	0.2	11,175	25.7	0	0.0	1,406	3.2	16,322	37.5	958	2.2	43,489	100
Irish potatoes	560	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	560	100
Yams	140	27.1	0	0.0	0	0.0	290	56.2	0	0.0	0	0.0	86	16.7	0	0.0	516	100
ROOTS & TUBERS	13,425	29.6	1,237	2.7	97	0.2	11,766	25.9	0	0.0	1,406	3.1	16,521	36.4	958	2.1	45,411	100
Mung Bean	420	83.0	0	0.0	0	0.0	86	17.0	0	0.0	0	0.0	0	0.0	0	0.0	506	100
Beans	11,873	37.7	1,163	3.7	301	1.0	15,635	49.6	140	0.4	0	0.0	2,417	7.7	0	0.0	31,529	100
Cowpeas	797	50.7	0	0.0	140	8.9	355	22.6	0	0.0	0	0.0	280	17.8	0	0.0	1,572	100
Green gram	0	0.0	0	0.0	0	0.0	103	54.5	0	0.0	0	0.0	86	45.5	0	0.0	189	100
Chick peas	0	0.0	0	0.0	0	0.0	182	100.0	0	0.0	0	0.0	0	0.0	0	0.0	182	100
Bambaranuts	0	0.0	0	0.0	0	0.0	415	100.0	0	0.0	0	0.0	0	0.0	0	0.0	415	100
Field Peas	0	0.0	0	0.0	0	0.0	86	38.1	0	0.0	0	0.0	140	61.9	0	0.0	226	100
PULSES	13,090	37.8	1,163	3.4	441	1.3	16,861	48.7	140	0.4	0	0.0	2,923	8.4	0	0.0	34,617	100
Sunflower	85	19.9	0	0.0	0	0.0	341	80.1	0	0.0	0	0.0	0	0.0	0	0.0	426	100
Simsim	0	0.0	0	0.0	0	0.0	169	66.7	0	0.0	0	0.0	85	33.3	0	0.0	254	100
Groundnut	1,421	47.9	140	4.7	0	0.0	705	23.8	0	0.0	0	0.0	700	23.6	0	0.0	2,965	100
Soya Beans	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	225	100.0	0	0.0	225	100
OIL SEEDS & OIL NUTS	1,505	38.9	140	3.6	0	0.0	1,215	31.4	0	0.0	0	0.0	1,009	26.1	0	0.0	3,870	100

...Cont. 5.22 Number of households storing Crops by Method of Storage and Crop Type Short Rainy Season - MARA

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Okra	140	43.4	0	0.0	0	0.0	86	26.6	0	0.0	0	0.0	97	30.0	0	0.0	323	100
Radish	140	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	140	100
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	100.0	0	0.0	97	100
Onion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	150	22.0	534	78.0	0	0.0	685	100
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	100.0	0	0.0	97	100
Cabbage	140	13.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	888	86.4	0	0.0	1,028	100
Tomatoes	402	11.7	0	0.0	0	0.0	0	0.0	0	0.0	150	4.4	2,739	79.8	140	4.1	3,432	100
Spinach	17	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	100
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	140	100.0	0	0.0	140	100
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	150	60.8	97	39.2	0	0.0	247	100
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	157	100.0	0	0.0	157	100
Pumpkins	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Cucumber	150	27.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	398	72.6	0	0.0	548	100
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	237	100.0	0	0.0	237	100
Water Mellon	85	12.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	503	74.8	85	12.6	673	100
FRUITS & VEGETABLES	1,075	13.7	0	0.0	0	0.0	86	1.1	0	0.0	451	5.8	5,984	76.5	225	2.9	7,820	100
Cotton	484	3.3	956	6.4	182	1.2	688	4.6	0	0.0	968	6.5	11,448	77.0	150	1.0	14,876	100
Tobacco	169	9.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,720	91.0	0	0.0	1,890	100
CASH CROPS	654	3.9	956	5.7	182	1.1	688	4.1	0	0.0	968	5.8	13,168	78.5	150	0.9	16,766	100
Total	177,237	53.5	7,260	2.2	719	0.2	90,300	27.3	418	0.1	3,213	1.0	50,582	15.3	1,473	0.4	331,202	100

5.23 Number of households storing Crops by Method of Storage and Crop Type Long Rainy Season - MARA

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Maize	72,749	69.9	2,397	2.3	169	0.2	24,326	23.4	280	0.3	376	0.4	3,767	3.6	0	0.0	104,065	100
Paddy	2,213	34.2	150	2.3	0	0.0	3,405	52.6	0	0.0	150	2.3	555	8.6	0	0.0	6,473	100
Sorghum	52,646	83.2	591	0.9	0	0.0	8,214	13.0	0	0.0	376	0.6	1,329	2.1	85	0.1	63,242	100
Bulrush Millet	85	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	85	100
Finger Millet	11,957	78.9	290	1.9	0	0.0	2,465	16.3	0	0.0	0	0.0	441	2.9	0	0.0	15,154	100
CEREALS	139,650	73.9	3,429	1.8	169	0.1	38,410	20.3	280	0.1	903	0.5	6,092	3.2	85	0.0	189,018	100
Cassava	470	37.4	86	6.8	0	0.0	322	25.6	0	0.0	0	0.0	380	30.2	0	0.0	1,259	100
Sweet Potato	4,687	22.6	85	0.4	0	0.0	3,298	15.9	86	0.4	1,805	8.7	9,798	47.3	953	4.6	20,710	100
Irish potatoes	237	39.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	366	60.7	0	0.0	603	100
Yams	280	54.2	0	0.0	0	0.0	150	29.1	0	0.0	0	0.0	86	16.7	0	0.0	516	100
ROOTS & TUBERS	5,674	24.6	171	0.7	0	0.0	3,771	16.3	86	0.4	1,805	7.8	10,630	46.0	953	4.1	23,088	100
Mung Bean	183	68.0	0	0.0	0	0.0	86	32.0	0	0.0	0	0.0	0	0.0	0	0.0	269	100
Beans	7,754	40.6	1,561	8.2	0	0.0	8,240	43.2	430	2.3	150	0.8	948	5.0	0	0.0	19,084	100
Cowpeas	570	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	570	100
Green gram	280	31.7	0	0.0	0	0.0	516	58.5	0	0.0	0	0.0	86	9.8	0	0.0	882	100
Chick peas	97	20.0	0	0.0	0	0.0	290	60.0	0	0.0	0	0.0	97	20.0	0	0.0	484	100
Bambaranuts	290	49.1	0	0.0	0	0.0	301	50.9	0	0.0	0	0.0	0	0.0	0	0.0	591	100
Field Peas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
PULSES	9,174	41.9	1,561	7.1	0	0.0	9,433	43.1	430	2.0	150	0.7	1,131	5.2	0	0.0	21,880	100
Sunflower	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	85	100.0	0	0.0	85	100
Simsim	0	0.0	0	0.0	0	0.0	254	100.0	0	0.0	0	0.0	0	0.0	0	0.0	254	100
Groundnut	698	35.5	0	0.0	0	0.0	634	32.3	0	0.0	0	0.0	632	32.2	0	0.0	1,965	100
Soya Beans	280	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	280	100
OIL SEEDS & OIL NUTS	978	37.9	0	0.0	0	0.0	889	34.4	0	0.0	0	0.0	717	27.7	0	0.0	2,584	100

...Cont. 5.23 Number of households storing Crops by Method of Storage and Crop Type Long Rainy Season - MARA

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Okra	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	278	100.0	0	0.0	278	100
Radish	97	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	100
Bitteer Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Onion	140	19.9	0	0.0	0	0.0	169	24.1	0	0.0	0	0.0	394	56.0	0	0.0	704	100
Ginger	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Cabbage	17	3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	472	96.5	0	0.0	489	100
Tomatoes	167	8.4	0	0.0	0	0.0	0	0.0	0	0.0	451	22.7	1,367	68.8	0	0.0	1,985	100
Spinach	140	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	140	100
Carrot	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	140	100.0	0	0.0	140	100
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Pumpkins	0	0.0	0	0.0	0	0.0	150	47.0	0	0.0	0	0.0	169	53.0	0	0.0	320	100
Cucumber	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	85	100.0	0	0.0	85	100
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	100.0	0	0.0	97	100
Water Mellon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	150	31.9	322	68.1	0	0.0	472	100
FRUITS & VEGETABLES	561	11.7	0	0.0	0	0.0	320	6.7	0	0.0	602	12.5	3,324	69.2	0	0.0	4,806	100
Cotton	266	4.2	0	0.0	0	0.0	150	2.4	0	0.0	290	4.6	5,568	88.7	0	0.0	6,275	100
Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	363	100.0	0	0.0	363	100
CASH CROPS	266	4.0	0	0.0	0	0.0	150	2.3	0	0.0	290	4.4	5,931	89.3	0	0.0	6,638	100
Total	156,304	63.0	5,160	2.1	169	0.1	52,973	21.4	796	0.3	3,750	1.5	27,824	11.2	1,037	0.4	248,015	100

5.24 Number of Households Reporting Marketing Problems for Agricultural Products by Crop, SHORT RAINY SEASON - MARA,

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperative problems	Trade Union Problems	Government Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Maize	53,666	4,034	9,224	449	5,697	0	2,530	0	86	838	6,281	451	44,680
Paddy	2,045	375	140	0	752	0	0	0	0	17	708	0	871
Sorghum	31,693	2,411	2,948	182	2,409	0	387	0	0	97	3,091	0	33,553
Bulrush Millet	0	0	0	0	0	0	0	0	0	0	0	0	97
Finger Millet	5,042	666	560	301	558	86	0	0	0	169	768	0	4,855
CEREALS	92,446	7,485	12,873	932	9,416	86	2,918	0	86	1,121	10,849	451	84,055
Cassava	114	0	0	0	0	0	0	0	0	0	150	0	581
Sweet Potato	14,454	944	1,305	849	2,045	0	0	0	85	86	4,114	150	19,459
Irish potatoes	560	0	0	0	0	0	0	0	0	0	0	0	0
Yams	226	0	0	0	0	0	0	0	0	0	0	0	290
ROOTS & TUBERS	15,353	944	1,305	849	2,045	0	0	0	85	86	4,264	150	20,330
Mung Bean	140	140	140	0	0	0	0	0	0	0	0	0	86
Beans	14,465	1,496	1,120	322	1,019	0	0	140	0	226	1,709	451	10,579
Cowpeas	1,238	0	0	0	0	0	0	0	0	0	0	0	334
Green gram	103	0	0	86	0	0	0	0	0	0	0	0	0
Chick peas	0	0	0	0	0	0	0	0	0	0	182	0	0
Bambaranuts	114	0	0	150	0	0	0	0	0	0	0	0	150
Field Peas	140	0	0	0	0	0	0	0	0	0	0	0	86
PULSES	16,200	1,636	1,260	559	1,019	0	0	140	0	226	1,890	451	11,235
Sunflower	86	340	0	0	0	0	0	0	0	0	0	0	0
Simsim	169	0	0	0	0	0	0	0	0	0	0	0	85
Groundnut	1,332	0	140	85	140	0	0	0	0	0	309	0	959
Soya Beans	225	0	0	0	0	0	0	0	0	0	0	0	0
OIL SEEDS & OIL NUTS	1,812	340	140	85	140	0	0	0	0	0	309	0	1,043

...cont.5.24 Number of Households Reporting Marketing Problems for Agricultural Products by Crop, SHORT RAINY SEASON - MARA,

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperative problems	Trade Union Problems	Government Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Okra	237	0	0	0	0	0	0	0	0	0	0	0	86
Radish	140	0	0	0	0	0	0	0	0	0	0	0	0
Bitteer	97	0	0	0	0	0	0	0	0	0	0	0	0
Aubergine													
Onion	309	85	0	0	150	0	0	0	0	140	0	0	0
Ginger	97	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	598	0	0	0	140	0	0	0	0	290	0	0	0
Tomatoes	2,057	140	0	0	581	0	0	0	0	184	235	0	235
Spinach	0	17	0	0	0	0	0	0	0	0	0	0	0
Carrot	140	0	0	0	0	0	0	0	0	0	0	0	0
Chillies	247	0	0	0	0	0	0	0	0	0	0	0	0
Amaranths	17	140	0	0	0	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	0	0	0	0	0	0
Cucumber	247	0	0	0	150	0	0	0	0	0	0	0	150
Egg Plant	97	140	0	0	0	0	0	0	0	0	0	0	0
Water Mellon	266	97	0	0	225	0	0	0	0	0	0	0	85
FRUITS & VEGETABLES	4,549	619	0	0	1,246	0	0	0	0	615	235	0	556
Cotton	11,875	169	254	0	0	150	548	85	0	0	690	0	1,105
Tobacco	1,271	0	169	85	0	0	0	0	0	0	280	0	85
CASH CROPS	13,146	169	424	85	0	150	548	85	0	0	970	0	1,190
Total	143,507	11,194	16,001	2,509	13,866	236	3,466	225	171	2,048	18,517	1,053	118,410

5.25 Number of Households Reporting Marketing Problems for Agricultural Products by Crop , LONG RAINY SEASON - MARA

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperative problems	Trade Union Problems	Government Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Maize	45,109	3,244	8,500	309	7,511	140	1,777	0	183	461	5,958	0	30,873
Paddy	2,557	451	366	0	387	0	301	0	0	0	698	0	1,713
Sorghum	25,194	2,569	3,164	558	3,507	0	0	86	547	366	1,451	0	25,801
Bulrush Millet	85	0	0	0	0	0	0	0	0	0	0	0	0
Finger Millet	8,858	689	807	0	85	0	97	0	0	0	703	0	3,916
CEREALS	81,803	6,953	12,837	867	11,489	140	2,174	86	730	827	8,810	0	62,302
Cassava	573	0	0	0	85	0	0	0	0	0	0	0	601
Sweet Potato	8,027	963	757	235	1,520	140	140	0	85	280	1,366	150	7,048
Irish potatoes	463	0	0	0	0	0	0	0	0	0	140	0	0
Yams	430	0	0	0	86	0	0	0	0	0	0	0	0
ROOTS & TUBERS	9,493	963	757	235	1,690	140	140	0	85	280	1,506	150	7,649
Mung Bean	0	0	0	0	97	0	0	0	0	0	0	0	172
Beans	7,734	366	1,783	387	686	0	0	0	0	0	1,146	301	6,681
Cowpeas	420	0	0	0	0	0	0	0	0	0	0	0	150
Green gram	796	0	0	0	0	0	0	0	0	0	0	0	86
Chick peas	290	0	0	0	0	0	97	0	0	0	0	0	97
Bambaranuts	290	0	0	0	0	0	0	0	0	0	0	0	301
Field Peas	0	0	0	0	0	0	0	0	0	0	0	0	0
PULSES	9,531	366	1,783	387	783	0	97	0	0	0	1,146	301	7,487
Sunflower	85	0	0	0	0	0	0	0	0	0	0	0	0
Simsim	169	0	0	0	0	0	0	0	0	0	85	0	0
Groundnut	1,416	140	140	0	0	0	0	0	0	0	86	0	183
Soya Beans	140	0	0	0	0	0	0	0	0	0	140	0	0
OIL SEEDS & OIL NUTS	1,810	140	140	0	0	0	0	0	0	0	311	0	183

...cont.5.25 Number of Households Reporting Marketing Problems for Agricultural Products by Crop LONG RAINY SEASON - MARA,

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperative problems	Trade Union Problems	Government Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Okra	194	0	0	0	0	0	0	0	0	0	85	0	0
Radish	97	0	0	0	0	0	0	0	0	0	0	0	0
Bitteer	0	0	0	0	0	0	0	0	0	0	0	0	0
Aubergine													
Onion	309	85	0	0	169	0	0	0	0	0	0	0	140
Ginger	0	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	17	0	0	150	85	0	0	0	0	0	97	0	140
Tomatoes	940	0	320	85	280	0	0	0	0	97	97	17	150
Spinach	140	0	0	0	0	0	0	0	0	0	0	0	0
Carrot	140	0	0	0	0	0	0	0	0	0	0	0	0
Chillies	0	0	0	0	0	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	150	85	0	0	0	0	0	85	0	0
Cucumber	0	0	0	0	85	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0	0	0	97	0	0
Water Mellon	235	0	0	0	140	0	0	0	0	0	97	0	0
FRUITS & VEGETABLES	2,072	85	320	386	844	0	0	0	0	97	557	17	430
Cotton	5,459	0	0	0	85	0	290	97	0	0	0	97	247
Tobacco	278	0	0	0	0	85	0	0	0	0	0	0	0
CASH CROPS	5,737	0	0	0	85	85	290	97	0	0	0	97	247
Total	110,446	8,506	15,836	1,874	14,891	365	2,702	183	815	1,204	12,330	565	78,298

INPUT USE

5.26 Number of Households and Planted Area by Organic Fertiliser Use and District - SHORT RAINY SEASON

District	Organic Fertilizer Use						% of Planted area using Organic Fertilizer
	Number of Households using Organic Fertilizer	Planted Area Applied with Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area NOT Applied with Organic Fertilizer	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	6,160	5,564	42,420	40,186	48,580	45,750	12.2
Serengeti	2,457	1,638	26,604	34,305	29,061	35,943	4.6
Musoma Rural	3,610	2,281	34,290	26,631	37,900	28,912	7.9
Bunda	1,937	1,122	33,116	37,645	35,053	38,767	2.9
Musoma Urban	85	15	458	107	543	122	12.0
Rorya	860	801	16,769	19,923	17,629	20,723	3.9
Total	15,108	11,421	153,657	158,796	168,765	170,217	6.7

5.27 Number of Households and Planted Area by Organic Fertiliser Use and District - LONG RAINY SEASON

District	Organic Fertilizer Use						% of Planted area using Organic Fertilizer
	Number of Households using Organic Fertilizer	Planted Area Applied with Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area NOT Applied with Organic Fertilizer	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	4,900	2,827	40,880	39,273	45,780	42,100	6.7
Serengeti	1,440	1,432	24,824	25,122	26,265	26,555	5.4
Musoma Rural	2,106	1,383	28,124	21,326	30,230	22,709	6.1
Bunda	1,065	929	14,718	17,985	15,783	18,914	4.9
Musoma Urban	51	19	340	76	390	94	20.0
Rorya	3,354	2,298	15,307	14,589	18,661	16,886	13.6
Total	12,916	8,888	124,193	118,370	137,108	127,258	7.0

5.28 Number of Households and Planted Area by Inorganic Fertiliser Use and District - SHORT RAINY SEASON

District	Inorganic Fertilizer Use						% of Planted area using Inorganic Fertilizer
	Number of Households using Inorganic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area NOT Applied with Inorganic Fertilizer	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	48,580	1,941	0	43,809	48,580	45,750	4.2
Serengeti	29,061	532	0	35,411	29,061	35,943	1.5
Musoma Rural	37,900	457	0	28,455	37,900	28,912	1.6
Bunda	35,053	463	0	38,304	35,053	38,767	1.2
Musoma Urban	543	0	0	122	543	122	0.0
Rorya	17,629	0	0	20,723	17,629	20,723	0.0
Total	168,765	3,392	0	166,825	168,765	170,217	2.0

5.29 Number of Households and Planted Area by Inorganic Fertiliser Use and District - LONG RAINY SEASON

District	Inorganic Fertilizer Fertilizer Use						% of Planted area using Inorganic Fertilizer
	Number of Households using Inorganic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area NOT Applied with Inorganic Fertilizer	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	45,780	1,523	0	40,577	45,780	42,100	3.6
Serengeti	26,265	418	0	26,136	26,265	26,555	1.6
Musoma Rural	30,230	131	0	22,577	30,230	22,709	0.6
Bunda	15,783	157	0	18,757	15,783	18,914	0.8
Musoma Urban	390	0	0	94	390	94	0.0
Rorya	18,661	52	0	16,834	18,661	16,886	0.3
Total	137,108	2,282	0	124,976	137,108	127,258	1.8

5.30 Number of Households and Planted Area by Fungicide Use and District - SHORT RAINY SEASON

District	Fungicide Use						% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Applied with Fungicide	Number of Households NOT using Fungicide	Planted Area NOT Applied with Fungicide	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	700	174	47,880	45,577	48,580	45,750	0.4
Serengeti	847	373	28,213	35,570	29,061	35,943	1.0
Musoma Rural	1,955	445	35,945	28,467	37,900	28,912	1.5
Bunda	775	492	34,278	38,275	35,053	38,767	1.3
Musoma Urban	68	14	475	108	543	122	11.3
Rorya	0	0	17,629	20,723	17,629	20,723	0.0
Total	4,345	1,498	164,420	168,720	168,765	170,217	0.9

5.31 Number of Households and Planted Area by Fungicide Use and District - LONG RAINY SEASON

District	Fungicide Use						% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Applied with Fungicide	Number of Households NOT using Fungicide	Planted Area NOT Applied with Fungicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	280	128	45,500	41,973	45,780	42,100	0.3
Serengeti	847	669	25,417	25,886	26,265	26,555	2.5
Musoma Rural	752	152	29,478	22,556	30,230	22,709	0.7
Bunda	387	245	15,396	18,669	15,783	18,914	1.3
Musoma Urban	34	7	356	88	390	94	7.3
Rorya	172	56	18,489	16,831	18,661	16,886	0.3
Total	2,472	1,256	134,636	126,002	137,108	127,258	1.0

5.32 Number of Households and Planted Area by Herbicide Use and District - SHORT RAINY SEASON

District	Herbicide Use						% of Planted area using Herbicide
	Number of Households using Herbicide	Planted Area Applied with Herbicide	Number of Households NOT using Herbicides	Planted Area NOT Applied with Herbicide	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	140	57	48,440	45,694	48,580	45,750	0.1
Serengeti	254	257	28,806	35,686	29,061	35,943	0.7
Musoma Rural	0	.	37,900	28,912	37,900	28,912	.
Bunda	0	.	35,053	38,767	35,053	38,767	.
Musoma Urban	0	.	543	122	543	122	.
Rorya	0	.	17,629	20,723	17,629	20,723	.
Total	394	314	168,370	169,904	168,765	170,217	0.2

5.33 Number of Households and Planted Area by Herbicide Use and District - LONG RAINY SEASON

District	Herbicide Use						% of Planted area using Herbicide
	Number of Households using Herbicide	Planted Area Applied with Herbicide	Number of Households NOT using Herbicides	Planted Area NOT Applied with Herbicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	0	.	45,780	42,100	45,780	42,100	.
Serengeti	0	.	26,265	26,555	26,265	26,555	.
Musoma Rural	301	198	29,929	22,511	30,230	22,709	0.9
Bunda	0	.	15,783	18,914	15,783	18,914	.
Musoma Urban	0	.	390	94	390	94	.
Rorya	0	.	18,661	16,886	18,661	16,886	.
Total	301	198	136,808	127,060	137,108	127,258	0.2

5.34 Number of Households and Planted Area by Improved Seed Use and District - SHORT RAINY SEASON

District	Improved Seed						% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	17,360	11,355	31,220	34,395	48,580	45,750	24.8
Serengeti	7,879	6,577	21,181	29,366	29,061	35,943	18.3
Musoma Rural	6,467	3,604	31,433	25,308	37,900	28,912	12.5
Bunda	6,875	5,708	28,178	33,059	35,053	38,767	14.7
Musoma Urban	68	12	475	110	543	122	9.9
Rorya	946	670	16,683	20,053	17,629	20,723	3.2
Total	39,595	27,927	129,169	142,291	168,765	170,217	16.4

5.35 Number of Households and Planted Area by Improved Seed Use and District - LONG RAINY SEASON

District	Improved Seed						% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	14,840	10,914	30,940	31,186	45,780	42,100	25.9
Serengeti	2,965	2,393	23,299	24,162	26,265	26,555	9.0
Musoma Rural	3,760	2,224	26,470	20,485	30,230	22,709	9.8
Bunda	4,842	4,714	10,942	14,200	15,783	18,914	24.9
Musoma Urban	34	10	356	84	390	94	10.9
Rorya	1,892	1,118	16,769	15,769	18,661	16,886	6.6
Total	28,333	21,373	108,776	105,885	137,108	127,258	16.8

5.36 Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - SHORT Rainy Season

District	Using Local seed		Not using Local seed		TOTAL		% of Planted Area Using Local seeds
	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	
Tarime	39,760	33,003	8,820	12,747	48,580	45,750	72.1
Serengeti	26,180	28,645	2,881	7,323	29,061	35,943	79.7
Musoma Rural	35,343	24,848	2,557	4,064	37,900	28,912	85.9
Bunda	32,341	31,976	2,711	6,820	35,053	38,767	82.5
Musoma Urban	492	108	51	14	543	122	88.9
Rorya	17,629	17,718	0	3,005	17,629	20,723	85.5
Total	151,745	136,299	17,020	33,974	168,765	170,217	80.1

5.37 Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - LONG Rainy Season

District	Using Local seed		Not using Local seed		TOTAL		% of Planted Area Using Local seeds
	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	
Tarime	37,240	30,346	8,540	11,754	45,780	42,100	72.1
Serengeti	24,824	23,725	1,440	2,830	26,265	26,555	89.3
Musoma Rural	28,124	20,431	2,106	2,277	30,230	22,709	90.0
Bunda	13,072	14,104	2,711	4,810	15,783	18,914	74.6
Musoma Urban	356	84	34	10	390	94	89.1
Rorya	18,059	13,579	602	3,307	18,661	16,886	80.4
Total	121,675	102,270	15,433	24,988	137,108	127,258	80.4

5.38 Number of Households and Planted Area by Insecticides Use by District - SHORT RAINY SEASON

District	Insecticide Use						% of Planted area using Insecticides
	Number of Households using Insecticides	Planted Area Applied with Insecticides	Number of Households NOT using Insecticides	Planted Area Without Insecticides	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	700	227	47,880	45,524	48,580	45,750	0.5
Serengeti	4,236	3,572	24,824	32,371	29,061	35,943	9.9
Musoma Rural	4,061	2,303	33,839	26,609	37,900	28,912	8.0
Bunda	5,616	5,251	29,436	33,516	35,053	38,767	13.5
Musoma Urban	68	14	475	108	543	122	11.3
Rorya	0	.	17,629	20,723	17,629	20,723	.
Total	14,681	11,367	154,084	158,851	168,765	170,217	6.7

5.39 Number of Households and Planted Area by Insecticide Use and District - LONG RAINY SEASON

District	Insecticide Use						% of Planted area using Insecticides
	Number of Households using Insecticides	Planted Area Applied with Insecticides	Number of Households NOT using Insecticides	Planted Area Without Insecticides	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	280	99	45,500	42,001	45,780	42,100	0.2
Serengeti	1,271	763	24,994	25,791	26,265	26,555	2.9
Musoma Rural	1,354	344	28,876	22,365	30,230	22,709	1.5
Bunda	5,422	5,694	10,361	13,219	15,783	18,914	30.1
Musoma Urban	34	7	356	88	390	94	7.3
Rorya	172	61	18,489	16,825	18,661	16,886	0.4
Total	8,533	6,968	128,576	120,289	137,108	127,258	5.5

5.40 Number of Households and Planted Area by Irrigation Use and District - SHORT RAINY SEASON

District	Irrigation use						% of area planted under irrigation in Short rainy season
	Number of Households using Irrigation	Planted Area with Irrigation	Number of Households NOT using Irrigation	Planted Area with no Irrigation	Total Number of Households Planting in VULI	Total Planted Area in VULI	
Tarime	2,380	2,239	46,200	43,512	48,580	45,750	4.9
Serengeti	847	446	28,213	35,497	29,061	35,943	1.2
Musoma Rural	1,654	327	36,245	28,585	37,900	28,912	1.1
Bunda	678	394	34,375	38,373	35,053	38,767	1.0
Musoma Urban	68	14	475	108	543	122	11.3
Rorya	0	.	17,629	20,723	17,629	20,723	.
Total	5,627	3,420	163,137	166,798	168,765	170,217	2.0

5.41 Number of Households and Planted Area by Irrigation Use and District - LONG RAINY SEASON

District	Irrigation use						% of area planted under irrigation in long rainy season
	Number of Households using Irrigation	Planted Area with Irrigation	Number of Households NOT using Irrigation	Planted Area with no Irrigation	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Tarime	2,240	1,233	43,540	40,867	45,780	42,100	2.9
Serengeti	508	180	25,756	26,374	26,265	26,555	0.7
Musoma Rural	752	274	29,478	22,435	30,230	22,709	1.2
Bunda	387	206	15,396	18,708	15,783	18,914	1.1
Musoma Urban	34	7	356	88	390	94	7.3
Rorya	516	209	18,145	16,677	18,661	16,886	1.2
Total	4,438	2,108	132,671	125,150	137,108	127,258	1.7

INPUT USE BY CROP

5.42 Planted Area & Number of Households by Insecticide Use by Crop during 2007/08 agriculture year - LONG RAINY SEASON

Crop	Insecticide							% of area planted Insecticide
	Number of Households using Insecticide	Planted Area Insecticide Used	Cost of Insecticide	Number of Households NOT using Insecticide	Planted Area Insecticide not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	738	540	6,139,805	103,467	64,207			
Paddy	0	0	0	6,473	2,720	104,065	64,747	0.8
Sorghum	171	17	221,045	63,071	32,951	6,473	2,720	0.0
Bulrush Millet	0	0	0	85	274	63,242	32,968	0.1
Finger Millet	0	0	0	15,154	5,722	85	274	0.0
						15,154	5,722	0.0
CEREALS	909	557	6,360,851	188,249	105,875	189,018	106,432	0.5
Cassava	0	0	0	1,259	471	1,259	471	0.0
Sweet Potato	150	15	0	20,710	5,845	20,710	5,861	0.3
Irish potatoes	0	0	0	603	110	603	110	0.0
Yams	0	0	0	516	135	516	135	0.0
ROOTS & TUBERS	150	15	0	23,088	6,561	23,088	6,577	0.2
Mung Bean	0	0	0	269	84	269	84	0.0
Beans	320	152	3,472,698	18,764	5,051	19,084	5,203	2.9
Cowpeas	0	0	0	570	100	570	100	0.0
Green gram	0	0	0	882	189	882	189	0.0
Chick peas	290	431	12,103,781	194	98	484	529	81.5
Bambaranuts	0	0	0	591	74	591	74	0.0
Field Peas	0	0	0	0	0	0	0	#DIV/0!
PULSES	610	584	15,576,479	21,270	5,596	21,880	6,180	9.4
Sunflower	0	0	0	85	69	85	69	0.0
Simsim	0	0	0	254	98	254	98	0.0
Groundnut	0	0	0	1,965	518	1,965	518	0.0
Soya Beans	0	0	0	280	57	280	57	0.0
OIL SEEDS & OIL NUTS	0	0	0	2,584	741	2,584	741	0.0
Okra	182	87	1,567,435	97	78	278	165	52.6
Radish	0	0	0	97	118	97	118	0.0
Bitteer Aubergine	0	0	0	0	0	0	0	#DIV/0!
Onion	0	0	0	704	94	704	94	0.0
Ginger	0	0	0	0	0	0	0	#DIV/0!
Cabbage	404	41	2,053,058	85	9	489	49	82.7
Tomatoes	1,404	264	31,779,189	667	134	1,985	397	66.3
Spinach	0	0	0	140	14	140	14	0.0
Carrot	0	0	0	140	28	140	28	0.0
Chillies	0	0	0	0	0	0	0	#DIV/0!
Amaranths	0	0	0	0	0	0	0	#DIV/0!
Pumpkins	85	9	2,118,118	235	24	320	32	26.5
Cucumber	0	0	0	85	9	85	9	0.0
Egg Plant	97	10	271,125	0	0	97	10	100.0
Water Mellon	332	103	5,219,280	140	227	472	329	31.2
FRUITS & VEGETABLES	2,504	513	43,008,205	2,389	734	4,806	1,247	41.1
Cotton	5,096	5,018	142,461,282	1,179	747	6,275	5,765	87.0
Tobacco	278	282	7,310,656	85	34	363	316	89.1
CASH CROPS	5,374	5,300	149,771,938	1,264	782	6,638	6,081	87.1
Total		6,968	214,717,472		120,289	248,015	127,258	5.5

5.43 Planted Area & Number of Households by Fungicide Use by Crop during 2007/08 agriculture year - LONG RAINY SEASON

Crop	Fungicide							% of area planted with Fungicide
	Number of Households using Fungicide	Planted Area Fungicide Used	Cost of Fungicide	Number of Households NOT using Fungicide	Planted Area Fungicide not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	660	575	15,250,451	103,642	64,172			
Paddy	0	0	0	6,473	2,720	104,065	64,747	0.9
Sorghum	394	125	8,303,023	62,988	32,844	6,473	2,720	0.0
Bulrush Millet	0	0	0	85	274	63,242	32,968	0.4
Finger Millet	85	108	3,388,989	15,069	5,614	85	274	0.0
CEREALS	1,139	808	26,942,464	188,256	105,624	189,018	106,432	0.8
Cassava	0	0	0	1,259	471	1,259	471	0.0
Sweet Potato	0	0	0	20,710	5,861	20,710	5,861	0.0
Irish potatoes	0	0	0	603	110	603	110	0.0
Yams	0	0	0	516	135	516	135	0.0
ROOTS & TUBERS	0	0	0	23,088	6,577	23,088	6,577	0.0
Mung Bean	0	0	0	269	84	269	84	0.0
Beans	86	3	0	19,084	5,200	19,084	5,203	0.1
Cowpeas	0	0	0	570	100	570	100	0.0
Green gram	0	0	0	882	189	882	189	0.0
Chick peas	0	0	0	484	529	484	529	0.0
Bambaranuts	0	0	0	591	74	591	74	0.0
Field Peas	0	0	0	0	0	0	0	#DIV/0!
PULSES	86	3	0	21,880	6,176	21,880	6,180	0.1
Sunflower	0	0	0	85	69	85	69	0.0
Simsim	0	0	0	254	98	254	98	0.0
Groundnut	0	0	0	1,965	518	1,965	518	0.0
Soya Beans	0	0	0	280	57	280	57	0.0
OIL SEEDS & OIL NUTS	0	0	0	2,584	741	2,584	741	0.0
Okra	0	0	0	278	165	278	165	0.0
Radish	0	0	0	97	118	97	118	0.0
Bitteer Aubergine	0	0	0	0	0	0	0	#DIV/0!
Onion	0	0	0	704	94	704	94	0.0
Ginger	0	0	0	0	0	0	0	#DIV/0!
Cabbage	17	2	152,776	472	48	489	49	3.5
Tomatoes	1,320	255	49,074,936	752	142	1,985	397	64.1
Spinach	0	0	0	140	14	140	14	0.0
Carrot	0	0	0	140	28	140	28	0.0
Chillies	0	0	0	0	0	0	0	#DIV/0!
Amaranth	0	0	0	0	0	0	0	#DIV/0!
Pumpkins	0	0	0	320	32	320	32	0.0
Cucumber	0	0	0	85	9	85	9	0.0
Egg Plant	0	0	0	97	10	97	10	0.0
Water Mellon	85	69	1,270,871	387	261	472	329	20.8
FRUITS & VEGETABLES	1,421	325	50,498,582	3,471	921	4,806	1,247	26.1
Cotton	182	120	2,965,365	6,093	5,646	6,275	5,765	2.1
Tobacco	0	0	0	363	316	363	316	0.0
CASH CROPS	182	120	2,965,365	6,456	5,962	6,638	6,081	2.0
Total	2,828	1,256	80,406,411	245,736	126,002	248,015	127,258	1.0

5.44 Planted Area & Number of Households by Herbicide Use by Crop during 2007/08 agriculture year - LONG RAINY SEASON

Crop	Herbicide							% of area planted Herbicide
	Number of Households using Herbicide	Planted Area Herbicide Used	Cost of Herbicide	Number of Households NOT using Herbicide	Planted Area Herbicide not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	150	183	15,039,597	104,065	64,565	104,065	64,747	0.3
Paddy	0	0	0	6,473	2,720	6,473	2,720	0.0
Sorghum	0	0	0	63,242	32,968	63,242	32,968	0.0
Bulrush Millet	0	0	0	85	274	85	274	0.0
Finger Millet	0	0	0	15,154	5,722	15,154	5,722	0.0
CEREALS	150	183	15,039,597	189,018	106,249	189,018	106,432	0.2
Cassava	0	0	0	1,259	471	1,259	471	0.0
Sweet Potato	0	0	0	20,710	5,861	20,710	5,861	0.0
Irish potatoes	0	0	0	603	110	603	110	0.0
Yams	0	0	0	516	135	516	135	0.0
ROOTS & TUBERS	0	0	0	23,088	6,577	23,088	6,577	0.0
Mung Bean	0	0	0	269	84	269	84	0.0
Beans	0	0	0	19,084	5,203	19,084	5,203	0.0
Cowpeas	0	0	0	570	100	570	100	0.0
Green gram	0	0	0	882	189	882	189	0.0
Chick peas	0	0	0	484	529	484	529	0.0
Bambaranuts	0	0	0	591	74	591	74	0.0
Field Peas	0	0	0	0	0	0	0	#DIV/0!
PULSES	0	0	0	21,880	6,180	21,880	6,180	0.0
Sunflower	0	0	0	85	69	85	69	0.0
Simsim	0	0	0	254	98	254	98	0.0
Groundnut	0	0	0	1,965	518	1,965	518	0.0
Soya Beans	0	0	0	280	57	280	57	0.0
OIL SEEDS & OIL NUTS	0	0	0	2,584	741	2,584	741	0.0
Okra	0	0	0	278	165	278	165	0.0
Radish	0	0	0	97	118	97	118	0.0
Bitteer Aubergine	0	0	0	0	0	0	0	#DIV/0!
Onion	0	0	0	704	94	704	94	0.0
Ginger	0	0	0	0	0	0	0	#DIV/0!
Cabbage	150	15	375,990	339	34	489	49	30.8
Tomatoes	0	0	0	1,985	397	1,985	397	0.0
Spinach	0	0	0	140	14	140	14	0.0
Carrot	0	0	0	140	28	140	28	0.0
Chillies	0	0	0	0	0	0	0	#DIV/0!
Amaranths	0	0	0	0	0	0	0	#DIV/0!
Pumpkins	0	0	0	320	32	320	32	0.0
Cucumber	0	0	0	85	9	85	9	0.0
Egg Plant	0	0	0	97	10	97	10	0.0
Water Mellon	0	0	0	472	329	472	329	0.0
FRUITS & VEGETABLES	150	15	375,990	4,656	1,231	4,806	1,247	1.2
Cotton	0	0	0	6,275	5,765	6,275	5,765	0.0
Tobacco	0	0	0	363	316	363	316	0.0
CASH CROPS	0	0	0	6,638	6,081	6,638	6,081	0.0
Total	301	198	15,415,587	247,865	127,060	248,015	127,258	0.2

5.45 Planted Area & Number of Households by Improved Seeds Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Improved Seed							% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Cost of Improved Seeds	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	20,359	14,035	812,963,977	83,706	50,712	104,065	64,747	21.7
Paddy	719	316	3,364,396	5,754	2,404	6,473	2,720	11.6
Sorghum	677	282	2,992,039	62,565	32,686	63,242	32,968	0.9
Bulrush Millet	0	0	0	85	274	85	274	0.0
Finger Millet	280	71	1,749,994	14,874	5,651	15,154	5,722	1.2
CEREALS		14,704	821,070,407		91,728		106,432	13.8
Cassava	0	0	0	1,259	471	1,259	471	0.0
Sweet Potato	430	119	48,136,307	20,280	5,742	20,710	5,861	2.0
Irish potatoes	140	28	11,199,960	463	81	603	110	25.8
Yams	0	0	0	516	135	516	135	0.0
ROOTS & TUBERS		147	59,336,267		6,429		6,577	2.2
Mung Bean	0	0	0	269	84	269	84	0.0
Beans	2,239	732	41,070,424	16,845	4,471	19,084	5,203	14.1
Cowpeas	0	0	0	570	100	570	100	0.0
Green gram	0	0	0	882	189	882	189	0.0
Chick peas	0	0	0	484	529	484	529	0.0
Bambaranuts	0	0	0	591	74	591	74	0.0
Field Peas	0	0	0	0	0	-	-	#DIV/0!
PULSES		732	41,070,424		5,448		6,180	11.8
Sunflower	85	69	228,757	0	0	85	69	100.0
Simsim	0	0	0	254	98	254	98	0.0
Groundnut	0	0	0	1,965	518	1,965	518	0.0
Soya Beans	0	0	0	280	57	280	57	0.0
OIL SEEDS & OIL NUTS		69	228,757		673		741	9.3
Okra	97	78	1,210,378	182	87	278	165	47.4
Radish	0	0	0	97	118	97	118	0.0
Bitteer Aubergine	0	0	0	0	0	-	-	#DIV/0!
Onion	534	68	4,923,770	169	26	704	94	72.6
Ginger	0	0	0	0	0	-	-	#DIV/0!
Cabbage	404	41	650,107	85	9	489	49	82.7
Tomatoes	1,835	378	12,008,582	150	19	1,985	397	95.2
Spinach	140	14	279,999	0	0	140	14	100.0
Carrot	140	28	279,999	0	0	140	28	100.0
Chillies	0	0	0	0	0	-	-	#DIV/0!
Amaranths	0	0	0	0	0	-	-	#DIV/0!
Pumpkins	0	0	0	320	32	320	32	0.0
Cucumber	0	0	0	85	9	85	9	0.0
Egg Plant	97	10	726,227	0	0	97	10	100.0
Water Mellon	472	329	5,523,076	0	0	472	329	100.0
FRUITS & VEGETABLES		948	25,602,138		299		1,247	76.0
Cotton	4,696	4,621	58,646,359	1,579	1,144	6,275	5,765	80.2
Tobacco	182	152	1,876,077	182	164	363	316	48.1
CASH CROPS		4,773	60,522,436		1,308		6,081	78.5
Total		21,373	1,007,830,428		105,885		127,258	16.8

5.46 Planted Area & Number of Households by Local Seeds Use by Crop during 2007/08 agriculture year - LONG RAINY SEASON

Crop	Local Seed							% of area planted using Local seed
	Number of Households using Local Seed	Planted Area Local Seed Used	Cost of Local Seeds	Number of Households NOT using Local Seeds	Planted Area Local Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	83,706	48,615	769,774,500	20,359	16,132	104,065	64,747	75.1
Paddy	5,754	2,400	56,668,748	719	320	6,473	2,720	88.2
Sorghum	62,565	31,740	360,338,837	677	1,228	63,242	32,968	96.3
Bulrush Millet	85	274	813,357	0	0	85	274	100.0
Finger Millet	14,874	5,515	95,608,910	280	207	15,154	5,722	96.4
CEREALS		88,545	1,283,204,352		17,887	189,018	106,432	83.2
Cassava	1,259	456	20,613,141	0	15	1,259	471	96.8
Sweet Potato	20,280	5,547	594,180,085	430	314	20,710	5,861	94.6
Irish potatoes	463	81	7,428,382	140	28	603	110	74.2
Yams	516	121	32,337,861	0	14	516	135	89.5
ROOTS & TUBERS		6,205	654,559,469		372	23,088	6,577	94.3
Mung Bean	269	84	778,555	0	0	269	84	100.0
Beans	16,845	4,316	257,494,833	2,239	887	19,084	5,203	82.9
Cowpeas	570	100	1,094,630	0	0	570	100	100.0
Green gram	882	189	6,886,531	0	0	882	189	100.0
Chick peas	484	529	3,640,817	0	0	484	529	100.0
Bambaranuts	591	74	1,455,167	0	0	591	74	100.0
Field Peas	0	0	0	0	0	0	0	#DIV/0!
PULSES		5,293	271,350,534		887	21,880	6,180	85.6
Sunflower	0	0	0	85	69	85	69	0.0
Simsim	254	98	1,762,274	0	0	254	98	100.0
Groundnut	1,965	518	20,335,261	0	0	1,965	518	100.0
Soya Beans	280	57	1,245,996	0	0	280	57	100.0
OIL SEEDS & OIL NUTS		673	23,343,531		69	2,584	741	90.7
Okra	182	87	738,325	97	78	278	165	52.6
Radish	97	118	435,736	0	0	97	118	100.0
Bitteer Aubergine	0	0	0	0	0	0	0	#DIV/0!
Onion	169	26	2,118,118	534	68	704	94	27.4
Ginger	0	0	0	0	0	0	0	#DIV/0!
Cabbage	85	9	84,725	404	41	489	49	17.3
Tomatoes	150	15	601,584	1,835	382	1,985	397	3.8
Spinach	0	0	0	140	14	140	14	0.0
Carrot	0	0	0	140	28	140	28	0.0
Chillies	0	0	0	0	0	0	0	#DIV/0!
Amaranths	0	0	0	0	0	0	0	#DIV/0!
Pumpkins	320	32	861,029	0	0	320	32	100.0
Cucumber	85	9	423,624	0	0	85	9	100.0
Egg Plant	0	0	0	97	10	97	10	0.0
Water Mellon	0	0	0	472	329	472	329	0.0
FRUITS & VEGETABLES		295	5,263,141		952	4,806	1,247	23.7
Cotton	1,579	1,095	13,379,512	4,696	4,670	6,275	5,765	19.0
Tobacco	182	164	1,258,779	182	152	363	316	51.9
CASH CROPS		1,259	14,638,292		4,822	6,638	6,081	20.7
Total		102,270	2,252,359,319		24,988	248,015	127,258	80.4

5.47 Planted Area & Number of Households by Organic Fertilizer Use by Crop During 2007/08 Agriculture year - LONG RAINY SEASON

Crop	Organic Fertilizer							% of area planted Organic Fertilizer
	Number of Households using Organic Fertilizer	Planted Area Organic Fertilizer Used	Cost of Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area Organic Fertilizer not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	10,215	6,004	304,283,490	94,957	58,743	104,065	64,747	9.27
Paddy	387	54	2,730,195	6,237	2,666	6,473	2,720	1.98
Sorghum	2,774	1,152	81,011,276	60,876	31,817	63,242	32,968	3.49
Bulrush Millet	0	.	.	85	274	85	274	-
Finger Millet	1,345	289	52,157,064	13,809	5,433	15,154	5,722	5.06
CEREALS	14,721	7,499	440,182,025	175,963	98,933	189,018	106,432	7.05
Cassava	0	.	.	1,259	471	1,259	471	-
Sweet Potato	103	42	101,850	20,607	5,819	20,710	5,861	0.71
Irish potatoes	140	14	223,999	603	96	603	110	12.90
Yams	0	.	.	516	135	516	135	-
ROOTS & TUBERS	243	56	325,850	22,985	6,521	23,088	6,577	0.85
Mung Bean	0	.	.	269	84	269	84	-
Beans	1,781	400	119,926,961	17,388	4,804	19,084	5,203	7.69
Cowpeas	0	.	.	570	100	570	100	-
Green gram	140	28	2,239,992	742	161	882	189	15.00
Chick peas	0	.	.	484	529	484	529	-
Bambaranuts	0	.	.	591	74	591	74	-
Field Peas	0	.	.	0	.	0	0	-
PULSES	1,921	428	122,166,953	20,045	5,752	21,880	6,180	6.93
Sunflower	0	.	.	85	69	85	69	-
Simsim	85	17	423,624	169	81	254	98	17.54
Groundnut	226	94	5,685,973	1,739	424	1,965	518	18.09
Soya Beans	0	.	.	280	57	280	57	-
OIL SEEDS & OIL NUTS	311	111	6,109,597	2,273	630	2,584	741	14.96
Okra	0	.	.	278	165	278	165	-
Radish	0	.	.	97	118	97	118	-
Bitteer Aubergine	0	.	.	0	.	0	0	-
Onion	140	14	699,997	564	80	704	94	15.08
Ginger	0	.	.	0	.	0	0	-
Cabbage	157	16	521,849	332	34	489	49	32.11
Tomatoes	559	101	10,855,715	1,426	297	1,985	397	25.38
Spinach	0	.	.	140	14	140	14	-
Carrot	0	.	.	140	28	140	28	-
Chillies	0	.	.	0	.	0	0	-
Amaranths	0	.	.	0	.	0	0	-
Pumpkins	0	.	.	320	32	320	32	-
Cucumber	0	.	.	85	9	85	9	-
Egg Plant	0	.	.	97	10	97	10	-
Water Mellon	290	251	6,715,836	182	78	472	329	76.20
FRUITS & VEGETABLES	1,147	382	18,793,397	3,660	865	4,806	1,247	30.64
Cotton	484	412	8,327,401	5,791	5,354	6,275	5,765	7.14
Tobacco	0	.	.	363	316	363	316	-
CASH CROPS	484	412	8,327,401	6,154	5,670	6,638	6,081	6.77
Total		8,888	595,905,223		118,370	248,015	127,258	6.98

5.48 Planted Area & Number of Households by Inorganic Fertilizer Use by Crop During 2007/08 Agriculture year - LONG RAINY SEASON

Crop	Inorganic Fertilizer							% of area planted Using Inorganic Fertilizer
	Number of Households using Inorganic Fertilizer	Planted Area Inorganic Fertilizer Used	Cost of Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area Inorganic Fertilizer not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	3,094	1,664	212,383,877	101,391	63,083	104,065	64,747	2.57
Paddy	0	0	0	6,473	2,720	6,473	2,720	0.00
Sorghum	280	113	13,439,952	62,962	32,855	63,242	32,968	0.34
Bulrush Millet	0	0	0	85	274	85	274	0.00
Finger Millet	280	71	8,469,970	15,014	5,651	15,154	5,722	1.24
CEREALS		1,848	234,293,799		104,584	189,018	106,432	1.74
Cassava	0	0	0	1,259	471	1,259	471	0.00
Sweet Potato	0	0	0	20,710	5,861	20,710	5,861	0.00
Irish potatoes	0	0	0	603	110	603	110	0.00
Yams	0	0	0	516	135	516	135	0.00
ROOTS & TUBERS		0	0		6,577	23,088	6,577	0.00
Mung Bean	0	0	0	269	84	269	84	0.00
Beans	420	113	20,999,925	18,664	5,090	19,084	5,203	2.18
Cowpeas	0	0	0	570	100	570	100	0.00
Green gram	0	0	0	882	189	882	189	0.00
Chick peas	0	0	0	484	529	484	529	0.00
Bambaranuts	0	0	0	591	74	591	74	0.00
Field Peas	0	0	0	0	0	0	0	#DIV/0!
PULSES		113	20,999,925		6,067	21,880	6,180	1.83
Sunflower	0	0	0	85	69	85	69	0.00
Simsim	0	0	0	254	98	254	98	0.00
Groundnut	0	0	0	1,965	518	1,965	518	0.00
Soya Beans	0	0	0	280	57	280	57	0.00
OIL SEEDS & OIL NUTS		0	0		741	2,584	741	0.00
Okra	0	0	0	278	165	278	165	0.00
Radish	0	0	0	97	118	97	118	0.00
Bitteer Aubergine	0	0	0	0	0	0	0	#DIV/0!
Onion	0	0	0	704	94	704	94	0.00
Ginger	0	0	0	0	0	0	0	#DIV/0!
Cabbage	97	10	968,302	392	40	489	49	19.80
Tomatoes	719	139	15,002,532	1,738	259	1,985	397	34.94
Spinach	0	0	0	140	14	140	14	0.00
Carrot	0	0	0	140	28	140	28	0.00
Chillies	0	0	0	0	0	0	0	#DIV/0!
Amaranths	0	0	0	0	0	0	0	#DIV/0!
Pumpkins	0	0	0	320	32	320	32	0.00
Cucumber	0	0	0	85	9	85	9	0.00
Egg Plant	97	10	968,302	0	0	97	10	100.00
Water Mellon	97	10	968,302	375	320	472	329	2.97
FRUITS & VEGETABLES		168	17,907,440		1,078	4,806	1,247	13.50
Cotton	97	118	1,161,963	6,178	5,648	6,275	5,765	2.04
Tobacco	85	34	7,625,226	278	282	363	316	10.85
CASH CROPS		152	8,787,189		5,929	6,638	6,081	2.50
Total		2,282	281,988,352		124,976	248,015	127,258	1.79

5.49 Planted Area & Number of Households by Irrigation Use by Crop during 2007/08 agriculture year - LONG RAINY SEASON

Crop	Irrigation use						% of Planted area using Irrigation
	Number of Households using Irrigation	Planted Area Irrigated	Number of Households NOT using Irrigation	Planted Area Without Irrigation	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	2,346	813	101,720	63,934	104,065	64,747	1.3
Paddy	171	43	6,302	2,677	6,473	2,720	1.6
Sorghum	656	348	62,585	32,620	63,242	32,968	1.1
Bulrush Millet	0	0	85	274	85	274	0.0
Finger Millet	560	142	14,594	5,580	15,154	5,722	2.5
CEREALS	3,733	1,347	185,286	105,085	189,018	106,432	1.3
Cassava	0	0	1,259	471	1,259	471	0.0
Sweet Potato	0	0	20,710	5,861	20,710	5,861	0.0
Irish potatoes	0	0	603	110	603	110	0.0
Yams	0	0	516	135	516	135	0.0
ROOTS & TUBERS	0	0	23,088	6,577	23,088	6,577	0.0
Mung Bean	0	0	269	84	269	84	0.0
Beans	1,120	283	17,964	4,920	19,084	5,203	5.4
Cowpeas	0	0	570	100	570	100	0.0
Green gram	140	28	742	161	882	189	15.0
Chick peas	0	0	484	529	484	529	0.0
Bambaranuts	0	0	591	74	591	74	0.0
Field Peas	0	0	0	0	-	-	#DIV/0!
PULSES	1,260	312	20,620	5,868	21,880	6,180	5.0
Sunflower	0	0	85	69	85	69	0.0
Simsim	0	0	254	98	254	98	0.0
Groundnut	0	0	1,965	518	1,965	518	0.0
Soya Beans	0	0	280	57	280	57	0.0
OIL SEEDS & OIL NUTS	0	0	2,584	741	2,584	741	0.0
Okra	0	0	278	165	278	165	0.0
Radish	0	0	97	118	97	118	0.0
Bitteer Aubergine	0	0	0	0	-	-	#DIV/0!
Onion	339	34	365	60	704	94	36.5
Ginger	0	0	0	0	-	-	#DIV/0!
Cabbage	339	34	150	15	489	49	69.2
Tomatoes	1,169	200	816	198	1,985	397	50.3
Spinach	0	0	140	14	140	14	0.0
Carrot	0	0	140	28	140	28	0.0
Chillies	0	0	0	0	-	-	#DIV/0!
Amaranths	0	0	0	0	-	-	#DIV/0!
Pumpkins	0	0	320	32	320	32	0.0
Cucumber	0	0	85	9	85	9	0.0
Egg Plant	97	10	0	0	97	10	100.0
Water Mellon	247	34	225	295	472	329	10.4
FRUITS & VEGETABLES	2,191	312	2,616	934	4,806	1,247	25.0
Cotton	194	137	6,081	5,628	6,275	5,765	2.4
Tobacco	0	0	363	316	363	316	0.0
CASH CROPS	194	137	6,444	5,944	6,638	6,081	2.3
Total	7,377	2,108	240,638	125,150	248,015	127,258	1.7

PERMANENT CROPS

5.50 Number of Households Planting Permanent Crops by District, 2007/08 Agriculture Year -

District	Have Crops/Fruit Trees		Does Not Have Crops/Fruit Trees		Total	
	Number	%	Number	%	Number	%
Tarime	18,900	33	37,800	66.7	56,700	100.0
Serengeti	16,267	47	18,046	52.6	34,314	100.0
Musoma Rural	52,338	86	8,573	14.1	60,910	100.0
Bunda	23,820	61	15,396	39.3	39,216	100.0
Musoma Urban	764	100	0	0.0	764	100.0
Rorya	20,294	58	14,533	41.7	34,827	100.0
Total	132,383	58	94,348	41.6	226,731	100.0

5.51 Planted Area and Area Harvested by Type of Planting and District

District	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)
	Number of household	Area	Number of household	Area	Number of household	Area	
Tarime	16,800	7,830	3,220	1,635	18,900	9,465	7,955
Serengeti	14,064	9,234	2,711	1,510	16,267	10,744	10,070
Musoma Rural	44,818	37,081	8,272	7,092	52,187	44,173	42,807
Bunda	15,299	13,587	9,005	6,837	23,820	20,424	19,900
Musoma Urban	34	22	730	456	764	478	464
Rorya	17,801	12,031	3,182	1,861	20,208	13,892	11,983
Total	108,816	79,784	27,120	19,392	132,147	99,176	93,179

5.52 Area Planted, Area harvested, Quantity Harvested and Yield by Type of Permanent Crop - Mara

Crop	Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Quantity Harvested (kgs)	Yield (tons/Ha)	Yield (Kg/Ha)
	Number of households	Area					
Banana	5,508	1,346	1,184	11,323	11,322,628	8	9,562
Coffee	3,500	1,256	1,255	2,448	2,447,611	2	1,950
Mango	901	34	12	114	113,720	3	9,638
Orange	1,213	260	69	998	998,471	4	14,503
Sugar cane	387	151	151	1,446	1,445,567	10	9,545
Tea	140	14	14	0	0	0	0
Other	130,272	96,115	90,493	182,897	182,896,503	2	2,021
Total	141,921	99,176	93,179	199,224	199,224,499		

5.53 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Banana								Yield
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	
Tarime	2,940	854	1,820	374	4,760	1,228	1,101	10,646	10
Serengeti	-	-	-	-	-	-	-	-	0
Musoma Rural	301	59	150	1	451	60	44	618	14
Bunda	97	38	97	0	194	38	38	58	2
Musoma Urban	0	.	17	1	17	1	1	0	0
Rorya	0	.	86	19	86	19	.	0	0
Total	3,338	952	2,170	394	5,508	1,346	1,184	11,323	10

Cont. 5.53 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Mango							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	-	-	-	-	-	-	-	-
Serengeti	85	3	0	.	85	3	3	0
Musoma Rural	0	.	301	8	301	8	.	11
Bunda	-	-	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-	-	-
Rorya	86	8	430	13	516	22	8	103
Total	171	12	731	22	901	34	12	114

Cont. 5.53: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Sugarcane							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	140	41	0	.	140	41	41	1,400
Serengeti	-	-	-	-	-	-	-	-
Musoma Rural	150	15	0	.	150	15	15	30
Bunda	97	95	0	.	97	95	95	15
Musoma Urban	-	-	-	-	-	-	-	-
Rorya	-	-	-	-	-	-	-	-
Total	387	151	0	.	387	151	151	1,446

Cont. 5.53 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Others							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	13,020	5,694	2,380	1,055	15,260	6,750	5,544	25,358
Serengeti	14,318	9,197	2,711	1,510	16,521	10,707	10,032	6,770
Musoma Rural	44,818	37,007	8,121	7,082	52,488	44,089	42,748	80,697
Bunda	15,202	13,453	9,005	6,836	23,723	20,289	19,766	35,533
Musoma Urban	34	22	747	456	781	477	463	966
Rorya	18,059	11,988	3,784	1,815	21,498	13,803	11,940	33,572
Total	105,451	77361.4	26,748	18,754	130,272	96,115	90,493	182,897

Cont. 5.53 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Coffee							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	3,080	1,240	420	16	3,500	1,256	1,255	2,448
Serengeti	-	-	-	-	-	-	-	-
Musoma Rural	-	-	-	-	-	-	-	-
Bunda	-	-	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-	-	-
Rorya	-	-	-	-	-	-	-	-
Total	3,080	1,240	420	16	3,500	1,256	1,255	2,448

Cont. 5.53 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District

Districts	Tea							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	0	.	140	14	140	14	14	0
Serengeti	-	-	-	-	-	-	-	-
Musoma Rural	-	-	-	-	-	-	-	-
Bunda	-	-	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-	-	-
Rorya	-	-	-	-	-	-	-	-
Total	0	.	140	14	140	14	14	0

**Cont. 5.52 Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested,
Type of Planting Crops and District**

Districts	Orange							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Tarime	0	.	280	176	280	176	.	650
Serengeti	169	34	0	.	169	34	34	254
Musoma Rural	0	.	150	1	150	1	.	2
Bunda	0	.	97	1	97	1	1	0
Musoma Urban	-	-	-	-	-	-	-	-
Rorya	86	34	430	14	516	48	34	92
Total	255	68	957	192	1,213	260	69	998

ACCESS TO EQUIPMENTS

6.1 Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 agriculture year

District	Equipment/Asset Name												Total number of Agricultural Households
	Sword		Hand Hoe		Hand Sprayer		Grater, Chipper, Oil Press na Oil Mill		Oxplough		Oxplanter		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Tarime	55,440	25.9	56,280	26.3	6,580	3.1	700	.3	28,700	13.4	560	.3	56,700
Serengeti	33,890	27.7	33,890	27.7	4,236	3.5	593	.5	13,132	10.7	85	.1	34,314
Musoma Rural	56,398	36.7	59,858	39.0	3,459	2.3	0	.0	9,475	6.2	0	.0	60,910
Bunda	35,634	30.8	38,248	33.1	6,584	5.7	97	.1	10,167	8.8	97	.1	39,216
Musoma Urban	679	43.0	747	47.3	51	3.2	17	1.1	0	.0	0	.0	764
Rorya	33,365	32.7	34,225	33.5	946	.9	344	.3	9,717	9.5	172	.2	34,827
Total	215,406	30.4	223,247	31.5	21,857	3.1	1,751	.2	71,192	10.0	914	.1	226,731

...Cont. 6.1 Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 agriculture year

District	Equipment/Asset Name												Total number of Agricultural Households
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Tarime	1,400	.7	140	.1	140	.1	1,400	.7	16,240	7.6	19,600	9.2	56,700
Serengeti	932	.8	85	.1	169	.1	508	.4	10,591	8.7	12,285	10.1	34,314
Musoma Rural	602	.4	0	.0	0	.0	752	.5	8,272	5.4	7,520	4.9	60,910
Bunda	968	.8	97	.1	0	.0	387	.3	9,296	8.0	7,940	6.9	39,216
Musoma Urban	0	.0	0	.0	0	.0	17	1.1	0	.0	17	1.1	764
Rorya	516	.5	258	.3	86	.1	516	.5	3,784	3.7	9,029	8.8	34,827
Total	4,418	.6	580	.1	395	.1	3,581	.5	48,182	6.8	56,391	8.0	226,731

...Cont.6.1 Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 agriculture year

District	Equipment/Asset Name										Total number of Agricultural Households
	Cow		Donkey		Thrasher		Power tiller		Rigder		
	Number	%	Number	%	Number	%	Number	%	Number	%	
Tarime	18,900	8.8	4,480	2.1	0	.0	0	.0	3,360	1.6	56,700
Serengeti	10,845	8.9	593	.5	169	.1	85	.1	85	.1	34,314
Musoma Rural	5,565	3.6	1,203	.8	150	.1	150	.1	150	.1	60,910
Bunda	5,422	4.7	387	.3	97	.1	97	.1	0	.0	39,216
Musoma Urban	17	1.1	17	1.1	17	1.1	0	.0	0	.0	764
Rorya	7,997	7.8	688	.7	86	.1	86	.1	258	.3	34,827
Total	48,746	6.9	7,368	1.0	520	.1	418	.1	3,853	.5	226,731

6.2: Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agriculture year

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chipper, Oil Press na Oil Mill		Oxplough		Oxplanter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	141,259	33.6	203,699	24.3	7,280	23.2	7,420	83.3	44,100	44.9	4,620	67.3
Serengeti	60,663	14.4	115,056	13.7	4,575	14.6	932	10.5	17,199	17.5	169	2.5
Musoma Rural	92,945	22.1	235,370	28.0	7,821	24.9	.	-	14,288	14.5	.	-
Bunda	57,033	13.6	158,898	18.9	10,748	34.2	97	1.1	12,491	12.7	97	1.4
Musoma Urban	934	0.2	2,444	0.3	51	0.2	34	0.4	.	-	.	-
Rorya	67,333	16.0	124,088	14.8	946	3.0	430	4.8	10,233	10.4	1,978	28.8
Total	420,167	100.0	839,556	100.0	31,421	100.0	8,913	100.0	98,311	100.0	6,864	100.0

...cont 6.2 Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agriculture year

District	Equipment/Asset Name											
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,480	32.0	3,080.0	34.3	2,800.0	41.6	6,300.0	38.8	52,359.8	24.6	52,639.8	27.6
Serengeti	1,186	8.5	169.4	1.9	2,033.4	30.2	1,609.8	9.9	47,615.3	22.4	38,380.3	20.2
Musoma Rural	752	5.4	.	-	.	-	3,308.7	20.4	49,931.5	23.5	37,749.4	19.8
Bunda	7,069	50.5	581.0	6.5	.	-	2,323.9	14.3	51,707.4	24.3	33,406.4	17.5
Musoma Urban	.	-	.	-	.	-	373.5	2.3	.	-	17.0	0.0
Rorya	516	3.7	5,159.6	57.4	1,891.9	28.1	2,321.8	14.3	11,265.1	5.3	28,205.8	14.8
Total	14,003	100.0	8,990.0	100.0	6,725.2	100.0	16,237.7	100.0	212,879.0	100.0	190,398.7	100.0

...cont 6.2 Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agriculture year

District	Equipment/Asset Name									
	Cow		Donkey		Thrasher		Power tiller		Rigder	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	66,920	19.8	9,520	55.1	.	-	.	-	4,480	88.6
Serengeti	111,413	32.9	1,101	6.4	339	3.5	169	3.4	169	3.4
Musoma Rural	66,926	19.8	2,858	16.5	4,512	47.0	4,512	89.4	150	3.0
Bunda	60,228	17.8	775	4.5	2,130	22.2	194	3.8	.	-
Musoma Urban	34	0.0	373	2.2	34	0.4	.	-	.	-
Rorya	32,935	9.7	2,666	15.4	2,580	26.9	172	3.4	258	5.1
Total	338,457	100.0	17,293	100.0	9,595	100.0	5,047	100.0	5,058	100.0

6.3 Number of Agricultural Households that Used Tractors/Draft animals to cultivate Land By Type and District for 2007/08 agriculture year - MARA REGION

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller		Total Agricultural Households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Tarime	48,720	29.9	45,920	28.2	61,320	37.6	4,340	2.7	2,800	1.7	.	.	56,700
Serengeti	45,497	27.5	29,654	17.9	89,639	54.3	424	.3	34,314
Musoma Rural	48,879	36.8	28,274	21.3	52,939	39.8	2,858	2.1	60,910
Bunda	47,640	47.4	21,206	21.1	31,179	31.1	290	.3	.	.	97	.1	39,216
Musoma Urban	764
Rorya	10,835	16.6	27,346	42.0	25,798	39.6	1,204	1.8	34,827
Total	201,571	32.2	152,400	24.3	260,875	41.6	9,116	1.5	2,800	.4	97	.0	226,731

6.4 Number of Tractors/Draft animals owned By Type and District for 2007/08 agriculture year - MARA REGION

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	19,320	44.7	17,640	40.8	6,020	13.9	280	.6	0	.0	0	.0
Serengeti	11,861	49.6	8,218	34.4	3,558	14.9	254	1.1	0	.0	0	.0
Musoma Rural	14,288	59.4	7,821	32.5	1,504	6.3	301	1.3	150	.6	0	.0
Bunda	14,331	68.2	5,132	24.4	1,162	5.5	194	.9	194	.9	0	.0
Musoma Urban	0	.	0	.	0	.	0	.	0	.	0	.
Rorya	5,246	28.9	9,287	51.2	3,440	19.0	172	.9	0	.0	0	.0
Total	65,045	49.9	48,098	36.9	15,684	12.0	1,201	.9	344	.3	0	.0

IRRIGATION

6.5 Number of Agriculture Households reporting use of Irrigation during 2007/08 agricultural Year by District

District	Households practicing irrigation		Households not practicing irrigation		Total Number of Households	
	Number	%	Number	%	Number	%
Tarime	980	2	55,720	98	56,700	100
Serengeti	763	2	33,551	98	34,314	100
Musoma Rural	2,707	4	58,203	96	60,910	100
Bunda	871	2	38,345	98	39,216	100
Musoma Urban	102	13	662	87	764	100
Rorya	258	1	34,569	99	34,827	100
Total	5,681	3	221,050	97	226,731	100

6.6 Number of Agriculture Households by source of irrigation water and district during 2007/08 agriculture year

District	Main Source of Irrigation Water						Total
	River	Borehole	Lake	Canal	Dam	Tap Water	
Tarime	420	0	0	140	140	0	700
Serengeti	254	0	169	169	0	0	593
Musoma Rural	1,354	602	0	752	0	0	2,707
Bunda	194	290	0	97	0	194	775
Musoma Urban	17	85	0	0	0	0	102
Rorya	0	0	86	86	0	0	172
Total	2,238	977	255	1,244	140	194	5,049

6.7 Number of Agriculture Households by method used to obtain water and region during 2007/08 agriculture year

District	Main method of Obtaining Water				Total
	Gravity	Hand bucket	Hand pump	motor pump	
Tarime	0	700	0	0	700
Serengeti	0	593	0	0	593
Musoma Rural	150	2,406	150	0	2,707
Bunda	290	194	0	290	775
Musoma Urban	0	102	0	0	102
Rorya	86	86	0	0	172
Total	527	4,081	150	290	5,049

EROSION CONTROL

6.8 Number of Households with Soil Erosion Problem on their Land By District

District	Have any erosion problem on their farming land		Do not have any erosion problem on their farming land		Total	
	Number	%	Number	%	Number	%
Tarime	6,860	12.1	49,840	87.9	56,700	100
Serengeti	2,542	7.4	31,772	92.6	34,314	100
Musoma Rural	9,174	15.1	51,736	84.9	60,910	100
Bunda	3,486	8.9	35,730	91.1	39,216	100
Musoma Urban	289	37.8	475	62.2	764	100
Rorya	7,825	22.5	27,002	77.5	34,827	100
Total	30,176	13.3	196,555	86.7	226,731	100

6.9 Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District

District	Presence of Erosion Control/Water Harvesting Facilities					
	Have any erosion control/water harvesting facilities		Do not have any erosion control/water harvesting facilities		Total	
	Number	%	Number	%	Number	%
Tarime	5,040	9	51,660	91	56,700	100
Serengeti	1,186	3	33,127	97	34,314	100
Musoma Rural	4,963	8	55,947	92	60,910	100
Bunda	1,646	4	37,570	96	39,216	100
Musoma Urban	170	22	594	78	764	100
Rorya	3,870	11	30,958	89	34,827	100
Total	16,875	7	209,856	93	226,731	100

6.10 Number of Erosion Control/Water Harvesting Structures by Type and District as of 2007/08 agriculture year

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Others
Tarime	28,840	5,600	280	0	0	6,580	2,240	0
Serengeti	1,017	5,507	0	254	254	1,525	0	0
Musoma Rural	3,760	90,238	0	0	902	6,768	4,662	61,362
Bunda	6,391	2,033	0	0	0	1,065	968	1,065
Musoma Urban	3,684	51	0	0	0	3,735	0	0
Rorya	4,214	9,631	0	860	258	258	6,535	1,892
Total	47,905	113,060	280	1,114	1,415	19,930	14,406	64,319

AGRICULTURE CREDIT

7.1 Number of Agriculture Households receiving Credit by District During the 2007/08 Agriculture Year -

District	Households Receiving Credit					
	borrowed money for agriculture		Did not borrow money for agriculture		Total	
	Number	%	Number	%	Number	%
Tarime	840	1.5	55,860	98.5	56,700	100
Serengeti	254	0.7	34,059	99.3	34,314	100
Musoma Rural	1,053	1.7	59,858	98.3	60,910	100
Bunda	0	0.0	39,216	100.0	39,216	100
Musoma Urban	0	0.0	764	100.0	764	100
Rorya	172	0.5	34,655	99.5	34,827	100
Total	2,319	1.0	224,412	99.0	226,731	100

7.2 Number of Credits by sex of the household Member receiving credit During the 2007/08 Agriculture Year

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Tarime	700	83	140	17	840	100
Serengeti	254	100	0	0	254	100
Musoma Rural	902	86	150	14	1,053	100
Bunda	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-
Rorya	86	50	86	50	172	100
Total	1,943	84	376	16	2,319	100

7.3 Number of Households receiving Credits by Main Source of credit and District During the 2007/08 Agriculture Year

District	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		Trader/trade store		Private individual		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	0.0	140	16.7	140	16.7	140	16.7	0	0.0	140	16.7	280	33.3	840	100
Serengeti	85	33.3	85	33.3	0	0.0	0	0.0	0	0.0	85	33.3	0	0.0	254	100
Musoma Rural	752	71.4	150	14.3	0	0.0	150	14.3	0	0.0	0	0.0	0	0.0	1,053	100
Bunda	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Musoma Urban	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rorya	86	-	0	-	0	-	86	-	0	-	0	-	0	-	172	-
Total	923	39.8	375	16.2	140	6.0	376	16.2	0	0.0	225	9.7	280	12.1	2,319	100

7.4 Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture Year

District	Not needed		Not available		Did not want to go into debt		Interest rate/cost too high		Did not know how to get credit	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	2,100	3.8	11,480	20.6	5,180	9.3	2,520	4.5	19,880	35.6
Serengeti	3,558	10.4	3,897	11.4	2,965	8.7	1,186	3.5	10,760	31.6
Musoma Rural	4,963	8.3	4,061	6.8	10,829	18.1	1,955	3.3	24,815	41.5
Bunda	2,227	5.7	6,197	15.8	2,905	7.4	1,259	3.2	14,912	38.0
Musoma Urban	102	13.3	68	8.9	153	20.0	0	0.0	289	37.8
Rorya	602	1.7	3,956	11.4	5,848	16.9	1,290	3.7	16,253	46.9
Total	13,552	6.0	29,659	13.2	27,879	12.4	8,210	3.7	86,908	38.7

Cont 7.4 Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture Year

District	Difficult bureaucratic procedure		Credit granted too late		Other (specify)		Dont know about credit		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	3,640	6.5	140	0.3	140	0.3	10,780	19.3	55,860	100
Serengeti	3,220	9.5	593	1.7	169	0.5	7,710	22.6	34,059	100
Musoma Rural	2,707	4.5	150	0.3	150	0.3	10,227	17.1	59,858	100
Bunda	1,840	4.7	290	0.7	194	0.5	9,393	24.0	39,216	100
Musoma Urban	17	2.2	17	2.2	0	0.0	119	15.6	764	100
Rorya	1,290	3.7	0	0.0	86	0.2	5,332	15.4	34,655	100
Total	12,713	5.7	1,191	0.5	739	0.3	43,560	19.4	224,412	100

7.5 Number of Households receiving Credits by Main Source of credit B and region During the 2007/08 Agriculture Year

District	Family, friend or relative		Bank		Savings & credit Soc		Cooperative		NGO/Development Project		Trader/trade store		Private individual		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			Number	%
Tarime	0	0.0	0	0.0	140	33.3	0	0.0	0	0.0	280	67	0	0.0	0.0	0.0	420	100
Serengeti	85	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	85	100
Musoma Rural	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	150	100	0	0	150	100
Bunda	0	-	0	-	0	-	0	-	0	0.0	0	-	0	-	0.0	0.0	0	-
Musoma Urban	0	-	0	-	0	-	0	-	0	0.0	0	-	0	-	0.0	0.0	0	-
Rorya	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	86	100	0	0	0	0	86	100
Total	85	11.4	0	0.0	140	18.9	0	0.0	0	0.0	366	49	150	20	0	0	741	100

7.6 Number of Households receiving Credits by Main Source of credit C and region During the 2007/08 Agriculture Year

	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		Trader/trade store		Private individual		NGO/Project		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	0	0	0	140	33	0	0.0	0	0	0	0	280	67	0	0	420	100
Serengeti	85	100	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	85	100
Musoma Rural	0	0	0	0	0	0	0	0.0	150	100	0	0	0	0	0	0	150	100
Bunda	97	100	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	97	100
Rorya	0	0	0	0	0	0	0	0.0	0	0	86	100	0	0	0	0	86	100
Total	182	22	0	0	140	17	0	0.0	150	18	86	10	280	33	0	0	838	100

7.7 Provision of credit A by sex and district During the 2007/08 Agriculture Year

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Tarime	700	83	140	17	840	100
Serengeti	254	100	0	0	254	100
Musoma Rural	902	86	150	14	1,053	100
Bunda	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-
Rorya	86	50	86	50	172	100
Total	1,943	84	376	16	2,319	100

7.9 Provision of credit C by sex and district During the 2007/08 Agriculture Year

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Tarime	140	33	280	67	420	100
Serengeti	169	100	0	0	169	100
Musoma Rural	0	0	150	100	150	100
Bunda	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-
Rorya	86	100	0	0	86	100
Total	395	48	430	52	826	100

7.8 Provision of credit B by sex and district During the 2007/08 Agriculture Year

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Tarime	140	33	280	67	420	100
Serengeti	85	100	0	0	85	100
Musoma Rural	0	0	150	100	150	100
Bunda	-	-	-	-	-	-
Musoma Urban	-	-	-	-	-	-
Rorya	86	100	0	0	86	100
Total	311	42	430	58	741	100

AGRICULTURE CONSTRAINTS

8.1 Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility		Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs		Extension Services	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	15,540	27.41	1,400	2.47	20,860	36.79	3,780	6.67	2,520	4.44	280	.49	560	.99	2,800	4.94	2,240	3.95
Serengeti	4,829	14.07	1,186	3.46	8,134	23.70	3,220	9.38	1,779	5.19	678	1.98	169	.49	932	2.72	2,711	7.90
Musoma Rural	21,807	35.80	2,406	3.95	16,844	27.65	3,459	5.68	1,654	2.72	301	.49	301	.49	1,504	2.47	602	.99
Bunda	5,810	14.81	775	1.98	11,813	30.12	1,840	4.69	678	1.73	775	1.98	581	1.48	2,711	6.91	1,356	3.46
Musoma Urban	153	20.00	0	.00	153	20.00	238	31.11	17	2.22	0	.00	0	.00	51	6.67	0	.00
Rorya	5,934	17.04	774	2.22	11,695	33.58	3,440	9.88	258	.74	172	.49	172	.49	946	2.72	2,494	7.16
Total	54,073	23.85	6,541	2.88	69,499	30.65	15,976	7.05	6,906	3.05	2,205	.97	1,783	.79	8,944	3.94	9,402	4.15

...cont.8.1: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Forest Resources		Hunting and Gathering		Access to Potable Water		Access to Credit		Access to Off Farm Income		Threshing		Harvesting		Crop Storage		Crop Processing	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	.00	0	.00	560	.99	1,960	3.46	140	.25	0	.00	0	.00	0	.00	0	.00
Serengeti	0	.00	0	.00	339	.99	508	1.48	424	1.23	85	.25	0	.00	0	.00	85	.25
Musoma Rural	0	.00	0	.00	752	1.23	301	.49	602	.99	150	.25	0	.00	150	.25	0	.00
Bunda	0	.00	0	.00	387	.99	1,259	3.21	0	.00	0	.00	0	.00	0	.00	0	.00
Musoma Urban	0	.00	0	.00	0	.00	17	2.22	0	.00	0	.00	0	.00	0	.00	0	.00
Rorya	172	.49	258	.74	430	1.23	1,032	2.96	172	.49	0	.00	86	.25	86	.25	86	.25
Total	172	.08	258	.11	2,468	1.09	5,077	2.24	1,337	.59	235	.10	86	.04	236	.10	171	.08

cont.8.1 Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Marketing Information		Higher Transport Costs		Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation		Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	.00	980	1.73	420	.74	280	.49	1,400	2.47	0	.00	980	1.73	0	.00	56,700	100.0
Serengeti	85	.25	0	.00	3,558	10.37	85	.25	1,186	3.46	85	.25	4,236	12.35	0	.00	34,314	100.0
Musoma Rural	150	.25	301	.49	752	1.23	0	.00	2,406	3.95	0	.00	6,467	10.62	0	.00	60,910	100.0
Bunda	0	.00	0	.00	775	1.98	194	.49	968	2.47	0	.00	9,199	23.46	97	.25	39,216	100.0
Musoma Urban	0	.00	0	.00	0	.00	0	.00	34	4.44	0	.00	85	11.11	17	2.22	764	100.0
Rorya	0	.00	86	.25	602	1.73	0	.00	172	.49	0	.00	5,762	16.54	0	.00	34,827	100.0
Total	235	.10	1,367	.60	6,107	2.69	558	.25	6,167	2.72	85	.04	26,729	11.79	114	.05	226,731	100.0

8.2 Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility		Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs		Extension Services	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,820	3.21	2,940	5.19	10,780	19.01	11,900	20.99	9,100	16.05	280	.49	840	1.48	7,140	12.59	2,800	4.94
Serengeti	678	1.98	508	1.48	4,490	13.09	4,829	14.07	2,711	7.90	593	1.73	508	1.48	3,389	9.88	2,796	8.15
Musoma Rural	4,361	7.16	5,414	8.89	14,137	23.21	9,475	15.56	4,963	8.15	1,053	1.73	1,504	2.47	4,211	6.91	1,053	1.73
Bunda	2,614	6.67	1,162	2.96	7,262	18.52	4,067	10.37	3,970	10.12	2,033	5.19	1,259	3.21	2,905	7.41	2,711	6.91
Musoma Urban	51	6.67	0	.00	136	17.78	170	22.22	102	13.33	0	.00	0	.00	68	8.89	34	4.44
Rorya	1,376	3.95	1,290	3.70	7,309	20.99	4,988	14.32	5,160	14.81	1,118	3.21	602	1.73	3,354	9.63	1,720	4.94
Total	10,901	4.81	11,314	4.99	44,115	19.46	35,428	15.63	26,006	11.47	5,077	2.24	4,713	2.08	21,067	9.29	11,114	4.90

...cont. 8.2: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Forest Resources		Hunting and Gathering		Access to Potable Water		Access to Credit		Access to Off Farm Income		Threshing		Crop Storage		Crop Processing		Marketing Information	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	420	.74	0	.00	700	1.23	1,400	2.47	980	1.73	0	.00	0	.00	140	.25	560	.99
Serengeti	85	.25	0	.00	678	1.98	1,610	4.69	678	1.98	0	.00	85	.25	169	.49	85	.25
Musoma Rural	0	.00	0	.00	1,053	1.73	1,504	2.47	602	.99	150	.25	451	.74	0	.00	150	.25
Bunda	0	.00	97	.25	1,452	3.70	3,002	7.65	290	.74	97	.25	0	.00	97	.25	194	.49
Musoma Urban	17	2.22	0	.00	0	.00	34	4.44	0	.00	0	.00	0	.00	0	.00	0	.00
Rorya	172	.49	86	.25	946	2.72	1,978	5.68	688	1.98	86	.25	86	.25	0	.00	258	.74
Total	694	.31	183	.08	4,829	2.13	9,527	4.20	3,238	1.43	333	.15	622	.27	406	.18	1,247	.55

...cont. 8.2 Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year

District	Constraint															
	Higher Transport Costs		Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation		Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	700	1.23	0	.00	0	.00	1,820	3.21	280	.49	2,100	3.70	0	.00	56,700	100
Serengeti	0	.00	3,220	9.38	169	.49	2,288	6.67	85	.25	4,660	###	0	.00	34,314	100
Musoma Rural	150	.25	1,203	1.98	150	.25	4,512	7.41	0	.00	4,512	7.41	301	.49	60,910	100
Bunda	97	.25	775	1.98	97	.25	1,452	3.70	0	.00	3,292	8.40	290	.74	39,216	100
Musoma Urban	0	.00	17	2.22	0	.00	85	11.11	0	.00	51	6.67	0	.00	764	100
Rorya	86	.25	1,118	3.21	0	.00	860	2.47	0	.00	1,462	4.20	86	.25	34,827	100
Total	1,033	.46	6,332	2.79	417	.18	11,017	4.86	365	.16	16,077	7.09	677	.30	226,731	100

8.3 Number of Agricultural Households Reporting the THIRD most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility		Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs		Extension Services	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	700	1.23	280	.49	4,480	7.90	7,000	12.35	9,940	17.53	3,920	6.91	1,960	3.46	8,820	15.56	5,880	10.37
Serengeti	763	2.22	508	1.48	3,982	11.60	2,881	8.40	2,626	7.65	1,440	4.20	508	1.48	2,711	7.90	3,474	10.12
Musoma Rural	4,361	7.16	1,504	2.47	6,617	10.86	7,971	13.09	5,414	8.89	1,805	2.96	2,707	4.44	5,113	8.40	4,813	7.90
Bunda	1,065	2.72	484	1.23	4,357	11.11	3,486	8.89	4,745	12.10	3,389	8.64	2,130	5.43	5,035	12.84	1,840	4.69
Musoma Urban	85	11.11	0	.00	136	17.78	85	11.11	51	6.67	34	4.44	0	.00	85	11.11	119	15.56
Rorya	1,290	3.70	688	1.98	3,612	10.37	3,612	10.37	4,558	13.09	1,204	3.46	1,462	4.20	5,676	16.30	1,892	5.43
Total	8,264	3.64	3,464	1.53	23,184	10.23	25,034	11.04	27,334	12.06	11,792	5.20	8,768	3.87	27,440	12.10	18,017	7.95

...cont.8.3 Number of Agricultural Households Reporting the THIRD most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Forest Resources		Hunting and Gathering		Access to Potable Water		Access to Credit		Access to Off Farm Income		Threshing		Harvesting		Crop Storage		Crop Processing	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	.00	560	.99	2,100	3.70	3,920	6.91	1,260	2.22	140	.25	0	.00	840	1.48	140	.25
Serengeti	0	.00	0	.00	2,033	5.93	1,864	5.43	593	1.73	254	.74	0	.00	169	.49	593	1.73
Musoma Rural	0	.00	0	.00	602	.99	1,654	2.72	1,053	1.73	150	.25	0	.00	150	.25	150	.25
Bunda	0	.00	0	.00	1,162	2.96	3,776	9.63	97	.25	0	.00	0	.00	97	.25	0	.00
Musoma Urban	0	.00	0	.00	0	.00	51	6.67	34	4.44	0	.00	0	.00	17	2.22	0	.00
Rorya	86	.25	86	.25	688	1.98	3,784	10.86	860	2.47	258	.74	172	.49	86	.25	86	.25
Total	86	.04	646	.28	6,585	2.90	15,049	6.64	3,897	1.72	803	.35	172	.08	1,360	.60	969	.43

...cont.8.3 Number of Agricultural Households Reporting the THIRD most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Marketing Information		Higher Transport Costs		Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation		Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,120	1.98	420	.74	280	.49	0	.00	1,120	1.98	140	.25	1,540	2.72	140	.25	56,700	100.0
Serengeti	847	2.47	85	.25	2,288	6.67	424	1.23	2,881	8.40	254	.74	3,050	8.89	85	.25	34,314	100.0
Musoma Rural	451	.74	301	.49	1,654	2.72	150	.25	7,219	11.85	0	.00	7,069	11.60	0	.00	60,910	100.0
Bunda	387	.99	97	.25	678	1.73	97	.25	1,162	2.96	0	.00	4,938	12.59	194	.49	39,216	100.0
Musoma Urban	0	.00	0	.00	0	.00	0	.00	17	2.22	0	.00	51	6.67	0	.00	764	100.0
Rorya	172	.49	86	.25	774	2.22	258	.74	1,376	3.95	0	.00	2,064	5.93	0	.00	34,827	100.0
Total	2,978	1.31	988	.44	5,674	2.50	929	.41	13,774	6.08	394	.17	18,712	8.25	418	.18	226,731	100.0

8.4 Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility		Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs		Extension Services	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,400	2.47	840	1.48	2,520	4.44	3,640	6.42	4,760	8.40	700	1.23	5,880	10.37	9,660	17.04	3,780	6.67
Serengeti	678	1.98	169	.49	2,542	7.41	1,864	5.43	2,118	6.17	1,271	3.70	424	1.23	3,220	9.38	3,389	9.88
Musoma Rural	2,256	3.70	1,504	2.47	4,361	7.16	7,219	11.85	4,813	7.90	1,805	2.96	1,504	2.47	5,715	9.38	3,158	5.19
Bunda	1,162	2.96	484	1.23	3,873	9.88	2,905	7.41	3,486	8.89	2,130	5.43	2,711	6.91	3,389	8.64	1,646	4.20
Musoma Urban	17	2.22	0	.00	119	15.56	34	4.44	68	8.89	17	2.22	34	4.44	51	6.67	51	6.67
Rorya	1,720	4.94	516	1.48	1,892	5.43	2,150	6.17	3,612	10.37	946	2.72	1,032	2.96	4,472	12.84	2,236	6.42
Total	7,233	3.19	3,514	1.55	15,307	6.75	17,812	7.86	18,856	8.32	6,869	3.03	11,585	5.11	26,506	11.69	14,260	6.29

...cont. 8.4: Number of Agricultural Households Reporting the FOUTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Forest Resources		Hunting and Gathering		Access to Potable Water		Access to Credit		Access to Off Farm Income		Threshing		Harvesting		Crop Storage		Crop Processing	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	.00	140	.25	3,080	5.43	3,920	6.91	2,520	4.44	280	.49	140	.25	980	1.73	140	.25
Serengeti	254	.74	254	.74	763	2.22	2,118	6.17	1,440	4.20	254	.74	169	.49	593	1.73	508	1.48
Musoma Rural	0	.00	0	.00	2,106	3.46	3,610	5.93	1,354	2.22	150	.25	0	.00	752	1.23	150	.25
Bunda	0	.00	0	.00	1,452	3.70	3,486	8.89	581	1.48	0	.00	0	.00	0	.00	0	.00
Musoma Urban	0	.00	0	.00	0	.00	102	13.33	17	2.22	0	.00	0	.00	0	.00	0	.00
Rorya	86	.25	258	.74	1,118	3.21	3,870	11.11	2,064	5.93	0	.00	0	.00	258	.74	172	.49
Total	340	.15	652	.29	8,518	3.76	17,105	7.54	7,976	3.52	685	.30	309	.14	2,583	1.14	971	.43

...cont.8.4: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Marketing Information		Higher Transport Costs		Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation		Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	2,940	5.19	1400	2.47	280	.49	1,260	2.22	1,680	2.96	420	.74	4,060	7.16	280	.49	56,700	100.0
Serengeti	1,101	3.21	254	.7	3,304	9.63	763	2.22	3,558	10.37	169	.49	3,050	8.89	85	.25	34,314	100.0
Musoma Rural	301	.49	602	1.0	3,158	5.19	1,203	1.98	7,821	12.84	451	.74	6,768	11.11	150	.25	60,910	100.0
Bunda	2,033	5.19	0	.0	581	1.48	97	.25	4,357	11.11	0	.00	4,745	12.10	97	.25	39,216	100.0
Musoma Urban	17	2.22	0	.0	68	8.89	0	.00	102	13.33	0	.00	68	8.89	0	.00	764	100.0
Rorya	602	1.73	602	1.7	1,978	5.68	172	.49	1,462	4.20	0	.00	3,612	10.37	0	.00	34,827	100.0
Total	6,995	3.08	2858	1.3	9,369	4.13	3,495	1.54	18,980	8.37	1,041	.46	22,302	9.84	612	.27	226,731	100.0

8.5 Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility		Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs		Extension Services	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	700	1.23	700	1.23	3,500	6.17	2,800	4.94	2,940	5.19	420	.74	2,380	4.20	2,660	4.69	8,540	15.06
Serengeti	424	1.23	1,101	3.21	2,796	8.15	1,271	3.70	1,610	4.69	1,271	3.70	932	2.72	2,542	7.41	2,203	6.42
Musoma Rural	1,504	2.47	902	1.48	5,715	9.38	4,211	6.91	4,662	7.65	1,203	1.98	1,354	2.22	4,061	6.67	4,662	7.65
Bunda	1,646	4.20	290	.74	2,227	5.68	3,389	8.64	2,518	6.42	1,549	3.95	2,518	6.42	3,195	8.15	1,743	4.44
Musoma Urban	68	8.89	0	.00	51	6.67	85	11.11	102	13.33	17	2.22	17	2.22	34	4.44	153	20.00
Rorya	1,290	3.70	1,204	3.46	2,752	7.90	2,494	7.16	1,376	3.95	1,204	3.46	1,376	3.95	3,440	9.88	2,236	6.42
Total	5,631	2.48	4,198	1.85	17,041	7.52	14,250	6.28	13,207	5.83	5,664	2.50	8,576	3.78	15,932	7.03	19,537	8.62

...cont.8.5: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Access to Forest Resources		Hunting and Gathering		Access to Potable Water		Access to Credit		Access to Off Farm Income		Threshing		Harvesting		Crop Storage		Crop Processing	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	.00	0	.00	2,240	3.95	9,240	16.30	3,920	6.91	140	.25	0	.00	840	1.48	560	.99
Serengeti	254	.74	254	.74	1,186	3.46	3,643	10.62	1,525	4.44	85	.25	254	.74	508	1.48	169	.49
Musoma Rural	0	.00	0	.00	1,805	2.96	3,910	6.42	1,955	3.21	301	.49	0	.00	301	.49	451	.74
Bunda	0	.00	0	.00	1,065	2.72	5,907	15.06	484	1.23	0	.00	0	.00	290	.74	0	.00
Musoma Urban	0	.00	0	.00	0	.00	34	4.44	17	2.22	0	.00	0	.00	0	.00	0	.00
Rorya	0	.00	86	.25	1,548	4.44	2,752	7.90	1,892	5.43	86	.25	86	.25	172	.49	0	.00
Total	254	.11	340	.15	7,844	3.46	25,486	11.24	9,793	4.32	612	.27	340	.15	2,112	.93	1,181	.52

...cont. 8.5 Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year

District	Constraint																	
	Marketing Information		Higher Transport Costs		Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation		Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,820	3.21	2,660	4.69	700	1.23	1,540	2.72	2,520	4.44	280	.49	5,460	9.63	140	.25	56,700	100.0
Serengeti	932	2.72	339	.99	2,033	5.93	1,186	3.46	3,389	9.88	169	.49	4,067	11.85	169	.49	34,314	100.0
Musoma Rural	752	1.23	752	1.23	3,008	4.94	301	.49	7,369	12.10	0	.00	10,528	17.28	1,203	1.98	60,910	100.0
Bunda	3,099	7.90	387	.99	1,162	2.96	194	.49	2,808	7.16	0	.00	4,067	10.37	678	1.73	39,216	100.0
Musoma Urban	0	.00	17	2.22	17	2.22	0	.00	102	13.33	0	.00	51	6.67	0	.00	764	100.0
Rorya	430	1.23	258	.74	2,236	6.42	172	.49	2,150	6.17	86	.25	4,816	13.83	688	1.98	34,827	100.0
Total	7,032	3.10	4,413	1.95	9,156	4.04	3,393	1.50	18,338	8.09	535	.24	28,988	12.79	2,878	1.27	226,731	100.0

CATTLE PRODUCTION

8.6 Total Number of Households Rearing Cattle by District during 2007/08 Agriculture Year

District	Households rearing cattle		Households not rearing cattle		Total Agriculture households	Total Number of Households Rearing Livestock
	Number	%	Number	%		
Tarime	34,579.88	60.99	22,119.92	39.0	56,699.80	38,080
Serengeti	14,487.93	42.2	19,825.59	57.8	34,313.51	16,945
Musoma Rural	16,242.76	26.7	44,667.60	73.3	60,910.37	27,974
Bunda	13,653.07	34.8	25,563.19	65.2	39,216.25	17,720
Musoma Urban	33.95	4.4	729.93	95.6	763.88	102
Rorya	17,542.63	50.4	17,284.65	49.6	34,827.29	20,982
Total	96,540.22	42.6	130,190.88	57.4	226,731.09	121,803

8.7 Number of Cattle by Type and District as of 1st October 2008

District	Indigenous			Beef			Improved Dairy			Total		
	Number of households	Number of Cattle	Percentage	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%
Tarime	34,300	310,239	98.2	420	4,900	1.6	700	840	0.3	35,420	315,979	100
Serengeti	14,488	330,257	99.8	85	169	0.1	85	339	0.1	14,657	330,765	100
Musoma Rural	16,243	387,871	100.0	0	0	0.0	150	150	0.0	16,393	388,022	100
Bunda	13,653	494,415	100.0	0	0	0.0	0	0	0.0	13,653	494,415	100
Musoma Urban	34	1,731	100.0	0	0	0.0	0	0	0.0	34	1,731	100
Rorya	17,543	158,056	98.7	172	602	0.4	258	1,548	1.0	17,973	160,206	100
Total	96,260	1,682,569	99.5	677	5,671	0.3	1,193	2,877	0.2	98,130	1,691,118	100

8.8 Number of Households rearing cattle, Head of Cattle and Average Head per Household by Herd size During the 2007/08 Agricultural Year - Mara

Herd size	Cattle Rearing Households	%	Herd of Cattle	Average Per Household
1 - 5	31,857	33.0	97,180	3.1
6 - 10	22,976	23.8	177,930	7.7
11 - 15	13,261	13.7	172,323	13.0
16 - 20	8,066	8.4	144,647	17.9
21 - 30	7,813	8.1	193,801	24.8
31 - 40	4,308	4.5	149,316	34.7
41 - 50	2,302	2.4	107,870	46.9
51 - 60	985	1.0	55,839	56.7
61 -100	2,838	2.9	224,811	79.2
101 -150	973	1.0	115,344	118.5
151+	1,160	1.2	252,057	217.3
Total	96,540	100.0	1,691,118	17.5

8.9 Total Number of Cattle by Cattle Types and Category, 2007/08 Agricultural Year- Mara

Cattle Types	Indigeneous	Improved		Total Cattle	%
		Beef	Diary		
Castrated Bulls (Oxen)	252,493	0	0	252,493	15
Uncastrated Bulls	232,225	4,760	280	237,265	14
Cows	620,406	172	516	621,094	37
Steers	25,453	0	0	25,453	2
Heifers	248,344	86	479	248,909	15
Male Calves	150,161	567	140	150,869	9
Female Calves	153,487	86	1,462	155,035	9
National	1,682,569	5,671	2,877	1,691,118	100

8.10 Total Number of indigenous Cattle by Category of cattle and District as of 1st October

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers	Heifers				Male Calves		Female Calves		Total
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Tarime	53,480	17	61,320	20	111,720	26	4,200	3	30,380	10	23,660	11	25,480	13	310,239	100
Serengeti	59,477	15	43,210	19	103,364	19	3,982	3	60,324	16	29,315	14	30,586	14	330,257	100
Musoma Rural	59,256	15	46,924	18	135,056	21	3,910	3	69,633	16	35,945	15	37,148	14	387,871	100
Bunda	66,522	15	44,058	17	215,738	19	11,039	3	67,975	14	44,251	16	44,832	16	494,415	100
Musoma Urban	85	13	340	13	611	25	0	0	340	13	136	13	221	25	1,731	100
Rorya	13,673	8	36,375	22	53,918	24	2,322	3	19,692	15	16,855	14	15,221	15	158,056	100
Total	252,493	14	232,225	19	620,406	22	25,453	3	248,344	14	150,161	14	153,487	14	1,682,569	100

8.11 Total Number of Beef Cattle by Category of cattle and District as of 1st October

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Tarime	0	0	4,760	67	0	0	0	0	0	0	140	33	0	0	4,900	100
Serengeti	0	0	0	0	0	0	0	0	0	0	169	100	0	0	169	100
Musoma Rural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bunda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	172	20	0	0	86	20	258	40	86	20	602	100

8.12 Total Number of Dairy Cattle by Category of cattle and District as of 1st October

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Tarime	0	0	280	20	280	40	0	0	140	20	140	20	0	0	840	100
Serengeti	0	0	0	0	0	0	0	0	339	100	0	0	0	0	339	100
Musoma Rural	0	0	0	0	150	100	0	0	0	0	0	0	0	0	150	100
Bunda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	86	33	0	0	0	0	0	0	1,462	67	1,548	100
Total	0	0	280	12	516	43	0	0	479	19	140	12	1,462	14	2,877	100

8.13 Total Number Households rearing Cattle and Method of Cattle Identification by District during, 2007/08 Agricultural Year

District	Branding		Cattle Clan		Ear notching		Colour		Earrings		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	18,200	52	2,940	8	2,240	6	11,620	33	140	0	140	0	35,280	100
Serengeti	12,370	73	1,271	8	1,525	9	169	1	0	0	1,525	9	16,860	100
Musoma Rural	10,377	49	4,963	23	752	4	3,158	15	0	0	2,106	10	21,356	100
Bunda	10,554	62	581	3	678	4	1,937	11	581	3	2,711	16	17,042	100
Musoma Urban	17	33	0	0	17	33	0	0	0	0	17	33	51	100
Rorya	4,214	21	3,440	17	4,386	22	7,051	35	258	1	774	4	20,122	100
Total	55,732	50	13,195	12	9,597	9	23,936	22	979	1	7,273	7	110,712	100

CATTLE MILK

8.14 Number of Milked Dairy Cows by Breed, Season and District During the 2007/08 Agricultural Year

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Tarime	560	66,500	67,060	280	53,340	53,620
Serengeti	339	49,903	50,242	169	38,126	38,296
Musoma Rural	150	66,926	67,077	451	50,533	50,984
Bunda	0	78,336	78,336	194	60,906	61,100
Musoma Urban	0	272	272	0	187	187
Rorya	86	33,881	33,967	516	55,122	55,638
Total	1,135	295,817	296,953	1,610	258,214	259,824

8.15 Average Milk Production per Cow per Day by Breed, Season and District During the 2007/08 Agricultural Year

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Tarime	5	2	2	4	1	1
Serengeti	1	2	2	1	1	1
Musoma Rural	8	2	2	4	1	1
Bunda	0	2	2	1	1	1
Musoma Urban	0	3	3	0	2	2
Rorya	0	2	2	0	1	1
Total	5	2	2	3	1	1

8.16 Average number of days for cows on milk, by Breed, Season and Districts, During the 2007/08 Agricultural Year

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Tarime	206	170	171	200	148	149
Serengeti	4	133	132	35	117	116
Musoma Rural	180	133	134	65	107	105
Bunda	0	151	151	1	140	139
Musoma Urban	0	210	210	0	210	210
Rorya	155	106	107	0	89	89
Total	175	143	144	118	124	124

8.17 Average Price per Litre of Milk per season by Breed and District, During the 2007/08 Agricultural Year (Tshs.)

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Tarime	1,452	481	529	733	507	512
Serengeti	250	403	402	285	484	480
Musoma Rural	105	214	211	200	226	225
Bunda	0	237	237	1,700	340	369
Musoma Urban	0	350	350	0	350	350
Rorya	200	224	223	217	282	280
Total	981	343	360	597	390	395

8.18 Number of Milked Cows, Average Milk Produced per Cow per Day, Average Number of Days for Cows on Milk and Average Price per Litre per Season and District During the 2007/2008 Agriculture Year

District	Number of milked cows		Average milk production per cow per day(lts)		Average number of days for cows on milked		Average price per litre per season(Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Tarime	67,060	53,620	2	1	171	149	529	512
Serengeti	50,242	38,296	2	1	132	116	402	480
Musoma Rural	67,077	50,984	2	1	134	105	211	225
Bunda	78,336	61,100	2	1	151	139	237	369
Musoma Urban	272	187	3	2	210	210	350	350
Rorya	33,967	55,638	2	1	107	89	223	280
Total	296,953	259,824	2	1	144	124	360	395

GOAT PRODUCTION

8.19 Number of Agriculture Households Rearing Goats by District during the 2007/08 Agricultural Year

District	Households rearing Goat		Households NOT rearing Goat		Total	Total livestock keeping households
	No of households	%	No of households	%		
Tarime	23,100	41	33,600	59	56,700	38,080
Serengeti	13,641	40	20,673	60	34,314	16,945
Musoma Rural	28,274	46	32,636	54	60,910	27,974
Bunda	15,880	40	23,336	60	39,216	17,720
Musoma Urban	221	29	543	71	764	102
Rorya	14,705	42	20,122	58	34,827	20,982
Total	95,821	42	130,910	58	226,731	121,803

8.20 Number of Goats by Type and District as of 1st October 2008

District	Indigenous			Improved for Meat			Improved Dairy			Total	
	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats
Tarime	23,100	185,499	100.0	0	0	0.0	0	0	0.0	23,100	185,499
Serengeti	13,641	166,908	99.9	0	0	0.0	85	85	0.1	13,641	166,992
Musoma Rural	28,274	266,802	100.0	0	0	0.0	0	0	0.0	28,274	266,802
Bunda	15,880	204,505	96.8	0	0	0.0	194	6,778	3.2	15,880	211,284
Musoma Urban	221	1,511	100.0	0	0	0.0	0	0	0.0	221	1,511
Rorya	14,705	77,136	94.7	0	0	0.0	172	4,300	5.3	14,705	81,436
Total	95,821	902,362	98.8	0	0	0.0	450	11,163	1.2	95,821	913,524

8.21 Total Number of Indigenous Goat by Category and District as of 1st October 2008

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	35,840	19	12,040	6	94,080	51	18,760	10	24,780	13	185,499	100
Serengeti	26,434	16	10,167	6	84,132	50	22,876	14	23,299	14	166,908	100
Musoma Rural	42,562	16	18,348	7	131,446	49	35,945	13	38,501	14	266,802	100
Bunda	33,697	16	10,748	5	100,607	49	29,727	15	29,727	15	204,505	100
Musoma Urban	373	25	34	2	679	45	204	13	221	15	1,511	100
Rorya	12,985	17	2,666	3	41,105	53	9,889	13	10,491	14	77,136	100
Total	151,891	17	54,003	6	452,048	50	117,400	13	127,019	14	902,362	100

8.22 Number of Improved Goats for Meat by Flock Structure and District as of 1st October 2008

District	Goat Flock Structure											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Tarime	0	0	0	0	0	0	0	0	0	0	0	0
Serengeti	0	0	0	0	0	0	0	0	0	0	0	0
Musoma Rural	0	0	0	0	0	0	0	0	0	0	0	0
Bunda	0	0	0	0	0	0	0	0	0	0	0	0
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

8.23 Number of Improved Dairy Goats for Meat by Flock Structure and District as of 1st October 2008

District	Goat Flock Structure											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Tarime	0	0	0	0	0	0	0	0	0	0	0	0
Serengeti	0	0	0	0	85	100	0	0	0	0	85	100
Musoma Rural	0	0	0	0	0	0	0	0	0	0	0	0
Bunda	0	0	0	0	0	0	968	14	5,810	86	6,778	100
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	2,580	60	0	0	1,720	40	4,300	100
Total	0	0	0	0	2,665	24	968	9	7,530	67	11,163	100

8.24 Milk Production from Goat By Season and District, During the 2007/08 Agricultural Year

District	Number of Milked goat		Average milk production per goat per day (lts)		Average number of days for goats on milked		Average price per litre per season (Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
	Tarime	0	0	0	0	0	0	0
Serengeti	0	508	0	0	0	0	0	0
Musoma Rural	0	0	0	0	0	2	0	0
Bunda	0	0	0	0	0	0	0	0
Musoma Urban	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	0	0	6	2
Total	0	508	0	0	0	0	1	0

SHEEP PRODUCTION

8.25 Number of Households Rearing Sheep by District during the 2007/08 Agriculture Year

District	Number of households raising or managing sheep	%	Number of households not raising or managing sheep	%	Number of agriculture households	Total livestock keeping households
Tarime	11,200	19.8	45,500	80.2	56,700	38,080
Serengeti	7,625	22.2	26,688	77.8	34,314	16,945
Musoma Rural	5,715	9.4	55,195	90.6	60,910	27,974
Bunda	7,456	19.0	31,760	81.0	39,216	17,720
Musoma Urban	34	4.4	730	95.6	764	102
Rorya	6,278	18.0	28,550	82.0	34,827	20,982
Total	38,308	16.9	188,423	83.1	226,731	121,803

8.26 Number of Sheep by Type and District as of 1st October 2008

District	Indigenous		Improved for Mutton		Total Sheep
	Number	%	Number	%	
Tarime	38,080	100.0	0	-	110,880
Serengeti	16,945	100.0	0	-	81,336
Musoma Rural	27,974	100.0	0	-	74,897
Bunda	17,720	100.0	0	-	109,999
Musoma Urban	102	100.0	0	-	119
Rorya	20,982	100.0	0	-	40,847
Total	121,803	100.0	0	-	418,077

8.27 Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agriculture year

District	Number of Indigenous					Total
	Billy Sheep	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Tarime	12,180	2,240	40,180	46,480	9,800	110,880
Serengeti	10,421	2,033	46,344	11,353	11,184	81,336
Musoma Rural	9,776	6,617	38,501	10,528	9,475	74,897
Bunda	18,688	2,227	61,100	13,459	14,525	109,999
Musoma Urban	17	0	85	0	17	119
Rorya	7,137	516	21,326	6,278	5,590	40,847
Total	58,219	13,634	207,537	88,098	50,590	418,077

8.28 Number of Households Rearing Sheep, Head of Sheep and Average Head per Household by Herd Size as of 1st October 2008 - Mara

Herd size	Sheep Rearing Households	%	Herd of sheep	Average Per Household
1 - 4	14,297	37	34,325	2
5 - 9	12,067	31	77,392	6
10 - 14	4,370	11	52,169	12
15 - 19	2,971	8	48,926	16
20 - 24	1,062	3	22,783	21
25 - 29	1,128	3	30,170	27
30 - 34	818	2	25,599	31
35 - 39	363	1	13,145	36
40+	1,233	3	113,568	92
Total	38,308	100	418,077	11

8.29 Total Number of Sheep and Households by Flock Structure and Breed Type as of 1st October 2008 - Mara

Flock Structure	Indigeneous		Improved Beef		Total	
	Number of Households	Number of Sheeps	Number of Households	Number of Sheeps	Number of Sheeps	%
Billy Sheep	25,892	58,219	0	0	58,219	24
Castrated Sheep	5,522	13,634	0	0	13,634	5
She Sheep	36,719	207,537	0	0	207,537	35
Male Kid	18,487	88,098	0	0	88,098	17
She Kid	19,224	50,590	0	0	50,590	18
Total	105,844	418,077	0	0	418,077	100

PIG PRODUCTION

8.30 Number of Households Raising Pigs by District during 2007/08 Agriculture Year

District	During the 2007/2008 Agriculture Year					
	rearing Pigs		Not rearing pigs		Total	
	No of households	%	No of households	%	No of households	%
Tarime	0	0.0	56,700	100.0	56,700	100.0
Serengeti	0	0.0	34,314	100.0	34,314	100.0
Musoma Rural	150	0.2	60,760	99.8	60,910	100.0
Bunda	97	0.2	39,119	99.8	39,216	100.0
Musoma Urban	0	0.0	764	100.0	764	100.0
Rorya	172	0.5	34,655	99.5	34,827	100.0
Total	419	0.2	226,312	99.8	226,731	100.0

8.31 Number of Households rearing Pig, Head of Pig and Average Number of Pigs per Household by Herd size During the 2007/08 Agricultural Year - Mara

Flock Size	Pig rearing households		Herd of pigs		Average per household
	Number	%	Number	%	
1-4	269	64	538	30.9	2
5-9	150	36	1,203	69.1	8
10-14	0	-	0	-	-
15-19	0	-	0	-	-
20-24	0	-	0	-	-
25-29	0	-	0	-	-
30-39	0	-	0	-	-
40+	0	-	0	-	-
Total	419	100	1,741	100.0	4

8.32 Total Number of Pig by Herd Structure During 2007/08 Agricultural Year - Mara

Pig Structure	Total number of Pigs
Boar	430
Castrated Male	0
Sow/Gilt	709
Male Piglet	602
She Piglet	0
Total	1,741

8.33 Total Number of Indigenous Pig by Herd Structure and District During the 2007/08 Agricultural Year

District	Pig Herd Structure											
	Boar		Castrated Male		Sow/Gilt		Male Piglet		She Piglet		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	0	0	0	0	0	0	0	0	0	0	0
Serengeti	0	0	0	0	0	0	0	0	0	0	0	0
Musoma Rural	150	33	0	0	451	33	602	33	0	0	1,203	100
Bunda	194	100	0	0	0	0	0	0	0	0	194	100
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	86	33	0	0	258	67	0	0	0	0	344	100
Total	430	41	0	0	709	40	602	19	0	0	1,741	100

8.34 Number of Pigs per Household by District as of 1st October 2008

District	Number of households	Number of pigs	Total Pig	Average per household
Tarime	0	0	0	-
Serengeti	0	0	0	-
Musoma Rural	150	1,203	1,203	8
Bunda	97	194	194	2
Musoma Urban	0	0	0	-
Rorya	172	344	344	2
Total	419	1,741	1,741	4

CHICKEN AND OTHER LIVESTOCK

8.35 Number of Households Rearing Chicken by District during the 2007/08 Agriculture Year

District	raising chicken		not raising chicken		Total	%
	Number of households	%	Number of households	%		
Tarime	43,120	76.0	13,580	24.0	56,700	100.0
Serengeti	24,570	71.6	9,743	28.4	34,314	100.0
Musoma Rural	45,871	75.3	15,040	24.7	60,910	100.0
Bunda	25,370	64.7	13,847	35.3	39,216	100.0
Musoma Urban	577	75.6	187	24.4	764	100.0
Rorya	25,110	72.1	9,717	27.9	34,827	100.0
Total	164,618	72.6	62,114	27.4	226,731	100.0

8.36 Number of CHICKEN by Type and District as of 1st October 2008

Region	Indigineous chicken			Layers			Broilers			Total	
	Number of Households	Number of Indigineous Chicken	%	Number of Households	Number of Layers	%	Number of Households	Number of Broilers	%	Number of Households	Number of Chicken
Tarime	43,120	464,238	100.0	0	0	0.0	0.0	0	0.0	43,120	464,238.3
Serengeti	24,570	321,869	99.9	0	0	0.0	84.7	254	0.1	24,655	322,123.4
Musoma Rural	45,720	452,241	99.9	150	451	0.1	0.0	0	0.0	45,871	452,691.9
Bunda	25,370	324,962	100.0	0	0	0.0	0.0	0	0.0	25,370	324,962.3
Musoma Urban	577	5,551	100.0	0	0	0.0	0.0	0	0.0	577	5,550.8
Rorya	24,938	231,064	99.2	86	344	0.1	258.0	1,548	0.7	25,282	232,955.8
Total	164,295	1,799,925	99.9	236	795	0.0	342.7	1,802	0.1	164,874	1,802,523

8.37 Number of Households Keeping Chickens and Average Number of Chickens per Household by Flock Size as of 1st October 2008 - Mara

Heard Size	Indigineous chicken				Layers				Broilers			
	Number of Households	Number of Chicken	%	Number of Chicken Per Household	Number of Households	Number of Chicken	%	Number of Chicken Per Household	Number of Households	Number of Chicken	%	Number of Chicken Per Household
1-49	163,157	1,723,655	99.8	11	236	795	0.0	3	343	1,802	0.1	5
50-99	1,041	56,904	100.0	55	0	0	0.0	0	0	0	0.0	0
100-299	97	19,366	100.0	200	0	0	0.0	0	0	0	0.0	0
300-499	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
500-699	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
700+	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Total	164,295	1,799,925	99.9	11	236	795	0.0	3	343	1,802	0.1	5

8.38 Number of Other Livestock by Type of livestock and District as of 1st October 2008

District	Ducks	Guine pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Tarime	7,560	3,500	840	0	5,040	0	38,780
Serengeti	2,881	0	0	0	508	0	30,331
Musoma Rural	41,509	3,158	3,008	1,203	2,707	0	27,673
Bunda	18,785	0	0	0	1,162	0	20,528
Musoma Urban	798	0	0	0	0	0	51
Rorya	12,039	0	0	0	774	0	12,641
Total	83,572	6,658	3,848	1,203	10,191	0	130,004

8.39 Total Number of Chicken and Other Livestock by Type as of 1st October 2008

Type	Chicken		Others	
	Number	%	Type	Number
Indigenous Chicken	1,799,925		Ducks	83,572
Layer	795		Guinea pigs	6,658
Broiler	1,802		Turkeys	3,848
			Rabbits	1,203
			Donkeys	10,191
			Horses	0
			Dogs	130,004
TOTAL	1,802,523	100		

PESTS AND PARASITES

8.40 Number of Livestock Rearing households deworming Livestock by District during 2007/08 Agriculture Year

District	Deworming Livestock		Not Deworm Livestock		Total	
	Number	%	Number	%	Number of Livestock Rearing households	%
Tarime	27,860	57	20,720	43	48,580	100
Serengeti	15,250	56	12,116	44	27,366	100
Musoma Rural	21,206	40	31,583	60	52,789	100
Bunda	12,975	44	16,267	56	29,243	100
Musoma Urban	85	13	560	87	645	100
Rorya	10,491	34	20,466	66	30,958	100
Total	87,867	46	101,713	54	189,580	100

8.41 Number of Livestock Rearing households that dewormed Livestock by type of livestock and District, 2007/08 Agricultural Year

District	Cattle				Goats/Sheep				Pigs				Chicken			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Tarime	25,620	1,120	1,260	28,000	14,840	5,740	7,420	28,000	140	4,340	23,520	28,000	5,880	17,920	4,200	28,000
Serengeti	10,506	339	4,660	15,505	9,743	1,017	4,660	15,420	169	847	14,318	15,335	6,100	7,286	2,118	15,505
Musoma Rural	12,182	1,053	8,121	21,356	16,694	1,203	3,459	21,356	301	451	20,604	21,356	1,203	16,694	3,610	21,507
Bunda	9,780	871	2,227	12,878	9,683	581	2,614	12,878	0	1,452	11,426	12,878	1,646	9,102	2,130	12,878
Musoma Urban	17	0	85	102	68	0	17	85	0	0	85	85	17	68	0	85
Rorya	8,857	602	1,118	10,577	5,676	2,150	2,752	10,577	258	1,032	9,287	10,577	1,892	7,223	1,462	10,577
Total	66,962	3,985	17,471	88,418	56,704	10,691	20,922	88,317	868	8,123	79,241	88,232	16,738	58,294	13,520	88,552

8.42 Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agriculture Year

District	Tick Problem		No Tick Problem		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	32,760	67	7,000	14	8,960	18	48,720	100
Serengeti	15,759	57	2,118	8	9,659	35	27,536	100
Musoma Rural	27,522	53	5,565	11	18,950	36	52,037	100
Bunda	15,687	54	3,583	12	9,877	34	29,146	100
Musoma Urban	238	37	0	0	407	63	645	100
Rorya	17,113	57	5,246	17	7,825	26	30,184	100
Total	109,078	58	23,511	12	55,678	30	188,267	100

8.43 Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agriculture Year

District	Dipping		Spraying		Smearing		None		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,200	8.6	21,980	45.1	2,100	4.3	18,760	38.5	1,680	3.4	48,720	100
Serengeti	1,440	5.2	12,370	44.9	1,101	4.0	12,200	44.3	424	1.5	27,536	100
Musoma Rural	752	1.4	22,559	43.4	1,203	2.3	26,921	51.7	602	1.2	52,037	100
Bunda	2,130	7.3	12,782	43.9	678	2.3	13,266	45.5	290	1.0	29,146	100
Musoma Urban	0	0.0	85	13.2	17	2.6	543	84.2	0	0.0	645	100
Rorya	2,064	6.8	12,813	42.5	1,290	4.3	13,157	43.6	860	2.8	30,184	100
Total	10,586	5.6	82,589	43.9	6,389	3.4	84,847	45.1	3,856	2.0	188,267	100

8.44 Number of Livestock Rearing Households Normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	10,220	21	29,400	60	9,100	19	48,720	100
Serengeti	9,404	34	7,625	28	10,506	38	27,536	100
Musoma Rural	1,955	4	21,958	42	28,124	54	52,037	100
Bunda	4,357	15	13,750	47	11,039	38	29,146	100
Musoma Urban	17	3	187	29	441	68	645	100
Rorya	4,816	16	15,393	51	9,975	33	30,184	100
Total	30,770	16	88,312	47	69,185	37	188,267	100

8.45 Number of Livestock Rearing Households by Method of Tsetse Flies Control and District During 2007/08 Agriculture Year

District	Dipping		Spraying		Trappig		None		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	3,640	7.5	11,900	24.4	840	1.7	32,200	66.1	140	0.3	48,720	100
Serengeti	1,440	5.2	6,524	23.7	932	3.4	18,301	66.5	339	1.2	27,536	100
Musoma Rural	301	0.6	2,256	4.3	1,203	2.3	48,277	92.8	0	0.0	52,037	100
Bunda	1,356	4.7	3,970	13.6	775	2.7	22,465	77.1	581	2.0	29,146	100
Musoma Urban	0	0.0	17	2.6	17	2.6	611	94.7	0	0.0	645	100
Rorya	1,806	6.0	3,268	10.8	1,892	6.3	23,046	76.4	172	0.6	30,184	100
Total	8,543	4.5	27,934	14.8	5,659	3.0	144,899	77.0	1,232	0.7	188,267	100

8.46 Number of Livestock Rearing Households Normally Encountering Newcastle Disease Problems by District during 2007/08 Agriculture Year

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	30,940	64	14,560	30	3,220	7	48,720	100
Serengeti	15,844	58	9,659	35	2,033	7	27,536	100
Musoma Rural	28,876	55	19,702	38	3,459	7	52,037	100
Bunda	16,558	57	10,264	35	2,324	8	29,146	100
Musoma Urban	526	82	102	16	17	3	645	100
Rorya	16,855	56	10,405	34	2,924	10	30,184	100
Total	109,598	58	64,691	34	13,977	7	188,267	100

8.47 Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agriculture Year

District	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	7,700	16	22,820	47	18,200	37	48,720	100
Serengeti	3,643	13	8,472	31	15,420	56	27,536	100
Musoma Rural	4,361	8	17,897	34	29,778	57	52,037	100
Bunda	4,357	15	10,651	37	14,137	49	29,146	100
Musoma Urban	51	8	221	34	373	58	645	100
Rorya	1,548	5	12,125	40	16,511	55	30,184	100
Total	21,661	12	72,187	38	94,420	50	188,267	100

8.48 Number of Livestock Rearing Households Normally Encountering Fowl Typhoid Disease Problems by District during 2007/08 Agriculture Year

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	20,020	41	24,640	51	4,060	8	48,720	100
Serengeti	11,268	41	13,725	50	2,542	9	27,536	100
Musoma Rural	16,393	32	30,681	59	4,963	10	52,037	100
Bunda	8,037	28	18,591	64	2,518	9	29,146	100
Musoma Urban	238	37	373	58	34	5	645	100
Rorya	12,641	42	13,931	46	3,612	12	30,184	100
Total	68,597	36	101,942	54	17,728	9	188,267	100

8.49 Number of Livestock Rearing Households by Method of Fowl Typhoid Disease Control and District During 2007/08 Agriculture Year

District	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	5,180	11	15,960	33	27,580	57	48,720	100
Serengeti	2,203	8	7,371	27	17,962	65	27,536	100
Musoma Rural	602	1	12,784	25	38,652	74	52,037	100
Bunda	1,162	4	6,391	22	21,593	74	29,146	100
Musoma Urban	0	0	136	21	509	79	645	100
Rorya	946	3	10,663	35	18,575	62	30,184	100
Total	10,092	5	53,304	28	124,870	66	188,267	100

8.50 Number of Livestock Rearing Households Normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agriculture Year

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	5,180	11	32,060	66	11,480	24	48,720	100
Serengeti	932	3	14,573	53	12,031	44	27,536	100
Musoma Rural	150	0	17,296	33	34,591	66	52,037	100
Bunda	775	3	13,556	47	14,815	51	29,146	100
Musoma Urban	17	3	68	11	560	87	645	100
Rorya	688	2	17,199	57	12,297	41	30,184	100
Total	7,742	4	94,751	50	85,774	46	188,267	100

8.51 Number of Livestock Rearing Households normally Encountering Lympyskin Disease Problems by District during 2007/08 Agriculture Year

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	5,600	11	32,620	67	10,500	22	48,720	100
Serengeti	763	3	14,657	53	12,116	44	27,536	100
Musoma Rural	150	0	17,446	33	34,591	66	52,187	100
Bunda	194	1	13,847	48	15,106	52	29,146	100
Musoma Urban	0	0	85	13	560	87	645	100
Rorya	688	2	17,801	59	11,781	39	30,270	100
Total	7,395	4	96,455	51	84,653	45	188,503	100

LIVESTOCK EXTENSION SERVICES

8.52 Number of Households Receiving Extension Advice by District During the 2007/08 Agriculture Year

District	Receiving Livestock services		Not Receiving Livestock Extension services		Total
	Number	%	Number	%	
	Tarime	28,980	59	19,880	
Serengeti	9,320	33	19,148	67	28,468
Musoma Rural	43,164	84	8,121	16	51,285
Bunda	14,912	52	13,847	48	28,759
Musoma Urban	51	8	594	92	645
Rorya	11,695	39	18,489	61	30,184
Total	108,121	57	80,079	43	188,200

8.53 Number of Households Receiving Livestock Advice (overall) By Source of Extension and District During the 2007/08 agriculture year

District	Source of Livestock Extension												Number of Household receiving Extension
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Tarime	25,200	87.0	10,220	35.3	280	1.0	280	1.0	4,620	15.9	1,540	5.3	28,980
Serengeti	7,541	80.9	678	7.3	1,694	18.2	85	0.9	2,288	24.5	1,186	12.7	9,320
Musoma Rural	40,757	94.4	3,610	8.4	451	1.0	301	0.7	3,610	8.4	4,211	9.8	43,164
Bunda	14,815	99.4	775	5.2	678	4.5	290	1.9	2,227	14.9	97	0.6	14,912
Musoma Urban	51	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	51
Rorya	9,373	80.1	3,268	27.9	774	6.6	602	5.1	4,300	36.8	1,204	10.3	11,695
Total	97,737	90.4	18,550	17.2	3,877	3.6	1,558	1.4	17,044	15.8	8,238	7.6	108,121

8.54 Number of Agricultural Households Receiving Advice on Feeds and Proper Feeding by Source and District During 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	9,520	78.2	2,100	17.2	0	0.0	0	0.0	140	1.1	420	3.4	0	0.0	12,180
Serengeti	1,440	65.4	0	0.0	0	0.0	0	0.0	763	34.6	0	0.0	0	0.0	2,203
Musoma Rural	14,438	91.4	301	1.9	0	0.0	0	0.0	1,053	6.7	0	0.0	0	0.0	15,792
Bunda	3,583	94.9	0	0.0	0	0.0	0	0.0	194	5.1	0	0.0	0	0.0	3,776
Musoma Urban	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-
Rorya	4,042	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4,042
Total	33,023	86.9	2,401	6.3	0	0.0	0	0.0	2,149	5.7	420	1.1	102	0.3	37,992

8.55 Number of Households Receiving Extension Advice on Proper Livestock Housing by Source and District During the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%		%	Other (Specify)	%	
Tarime	7,560	64.3	3,780	32.1	0	0.0	0	0.0	280	2.4	140	1.2	0	0.0	11,760
Serengeti	2,118	71.4	424	14.3	0	0.0	0	0.0	339	11.4	85	2.9	0	0.0	2,965
Musoma Rural	26,319	89.3	752	2.6	0	0.0	150	0.5	902	3.1	1,354	4.6	0	0.0	29,478
Bunda	5,616	90.6	97	1.6	0	0.0	0	0.0	484	7.8	0	0.0	0	0.0	6,197
Musoma Urban	17	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17
Rorya	3,612	82.4	602	13.7	0	0.0	0	0.0	172	3.9	0	0.0	0	0.0	4,386
Total	45,242	82.6	5,654	10.3	0	0.0	150	0.3	2,177	4.0	1,578	2.9		0.0	54,803

8.56 Number of Households Receiving Extension Advice on Proper Milking and Milk Hygiene by Source and District During the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	8,120	67	3,080	26	0	0	140	1	560	5	140	1	0	0	12,040
Serengeti	932	69	0	0	0	0	0	0	424	31	0	0	0	0	1,356
Musoma Rural	6,166	89	451	7	0	0	0	0	301	4	0	0	0	0	6,918
Bunda	2,518	79	0	0	0	0	97	3	581	18	0	0	0	0	3,195
Musoma Urban	17	100	0	0	0	0	0	0	0	0	0	0	0	0	17
Rorya	4,300	85	516	10	0	0	0	0	258	5	0	0	0	0	5,074
Total	22,052	77	4,047	14	0	0	237	1	2,123	7	140	0	0	0	28,600

8.57 Number of Households Receiving Extension Advice on Livestock fattening by Source and District During the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%		%	Number	%	Other (Specify)	%	
Tarime	6,300	64.3	2,380	24.3	0	0.0	0	0.0	840	8.6	280	2.9	0	0.0	9,800
Serengeti	1,271	60.0	169	8.0	0	0.0	0	0.0	508	24.0	169	8.0	0	0.0	2,118
Musoma Rural	4,061	79.4	752	14.7	0	0.0	0	0.0	301	5.9	0	0.0	0	0.0	5,113
Bunda	1,937	71.4	97	3.6	0	0.0	97	3.6	581	21.4	0	0.0	0	0.0	2,711
Musoma Urban	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-
Rorya	3,526	68.3	1,032	20.0	86	1.7	0	0.0	516	10.0	0	0.0	0	0.0	5,160
Total	17,094	68.6	4,430	17.8	86	0.3	97	0.4	2,746	11.0	449	1.8	0	0.0	24,902

8.58 Number of households receiving extension advice on Disease control (dipping/spraying) by Source and District During the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	19,180	79.7	3,500	14.5	0	0.0	140	0.6	700	2.9	560	2.3	0	0.0	24,080
Serengeti	5,761	79.1	169	2.3	85	1.2	85	1.2	424	5.8	763	10.5	0	0.0	7,286
Musoma Rural	32,636	96.0	752	2.2	0	0.0	150	0.4	301	0.9	150	0.4	0	0.0	33,989
Bunda	13,556	97.2	0	0.0	0	0.0	97	0.7	290	2.1	0	0.0	0	0.0	13,944
Musoma Urban	17	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17
Rorya	6,278	73.7	688	8.1	86	1.0	258	3.0	774	9.1	430	5.1	0	0.0	8,513
Total	77,428	88.2	5,109	5.8	171	0.2	730	0.8	2,489	2.8	1,903	2.2	0	0.0	87,830

8.59 Number of households receiving extension Advice on Herd/Flock Size and Selection by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	7,560	58.7	3,500	27.2	0	0.0	0	0.0	1,820	14.1	0	0.0	0	0.0	12,880
Serengeti	2,542	81.1	0	0.0	0	0.0	0	0.0	508	16.2	85	2.7	0	0.0	3,135
Musoma Rural	14,438	91.4	602	3.8	0	0.0	0	0.0	602	3.8	150	1.0	0	0.0	15,792
Bunda	4,745	79.0	290	4.8	0	0.0	0	0.0	968	16.1	0	0.0	0	0.0	6,003
Musoma Urban	34	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	34
Rorya	5,160	73.2	602	8.5	86	1.2	86	1.2	860	12.2	258	3.7	0	0.0	7,051
Total	34,478	76.8	4,994	11.1	86	0.2	86	0.2	4,758	10.6	493	1.1	0	0.0	44,895

8.60 Number of Households Receiving Extension Advice on Pasture Establishment by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	6,300	62.5	2,100	20.8	0	0.0	0	0.0	1,540	15.3	140	1.4	0	0.0	10,080
Serengeti	1,271	78.9	0	0.0	0	0.0	0	0.0	339	21.1	0	0.0	0	0.0	1,610
Musoma Rural	7,971	88.3	301	3.3	0	0.0	0	0.0	602	6.7	150	1.7	0	0.0	9,024
Bunda	678	77.8	0	0.0	0	0.0	0	0.0	194	22.2	0	0.0	0	0.0	871
Musoma Urban	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Rorya	3,612	82.4	258	5.9	0	0.0	0	0.0	516	11.8	0	0.0	0	0.0	4,386
Total	19,831	76.4	2,659	10.2	0	0.0	0	0.0	3,190	12.3	290	1.1	0	0.0	25,971

8.61 Number of Households Receiving Extension Advice on Group Formation by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	8,260	53.2	5,600	36.0	0	0.0	0	0.0	1,540	9.9	140	0.9	0	0.0	15,540
Serengeti	1,694	45.5	339	9.1	1,610	43.2	0	0.0	85	2.3	0	0.0	0	0.0	3,728
Musoma Rural	15,792	85.4	902	4.9	451	2.4	0	0.0	602	3.3	602	3.3	150	0.8	18,499
Bunda	3,680	77.6	290	6.1	678	14.3	0	0.0	97	2.0	0	0.0	0	0.0	4,745
Musoma Urban	17	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17
Rorya	2,924	65.4	430	9.6	430	9.6	172	3.8	430	9.6	0	0.0	86	1.9	4,472
Total	32,366	68.9	7,562	16.1	3,169	6.7	172	0.4	2,753	5.9	742	1.6	236	0.5	47,000

8.62 Number of Households Receiving Extension Advice on Calf Rearing by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	7,980	64.0	3,500	28.1	140	1.1	0	0.0	840	6.7	0	0.0	0	0.0	12,460
Serengeti	1,440	77.3	0	0.0	0	0.0	0	0.0	424	22.7	0	0.0	0	0.0	1,864
Musoma Rural	11,881	89.8	752	5.7	0	0.0	0	0.0	301	2.3	301	2.3	0	0.0	13,235
Bunda	4,067	95.5	0	0.0	0	0.0	0	0.0	194	4.5	0	0.0	0	0.0	4,261
Musoma Urban	34	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	34
Rorya	3,784	81.5	258	5.6	86	1.9	86	1.9	172	3.7	258	5.6	0	0.0	4,644
Total	29,186	80.0	4,510	12.4	226	0.6	86	0.2	1,930	5.3	559	1.5	0	0.0	36,497

8.63 Number of Households Receiving Extension Advice on Use of Improved Bulls by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Karagwe	5,740	65.1	2,520	28.6	0	0.0	0	0.0	560	6.3	0	0.0	0	0.0	8,820
Bukoba Rural	678	88.9	0	0.0	0	0.0	0	0.0	85	11.1	0	0.0	0	0.0	763
Muleba	3,158	77.8	602	14.8	0	0.0	0	0.0	301	7.4	0	0.0	0	0.0	4,061
Biharamulo	1,549	80.0	97	5.0	0	0.0	0	0.0	290	15.0	0	0.0	0	0.0	1,937
Ngara	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Bukoba Urban	3,612	85.7	258	6.1	0	0.0	0	0.0	258	6.1	86	2.0	0	0.0	4,214
Total	14,737	74.5	3,476	17.6	0	0.0	0	0.0	1,494	7.5	86	0.4	0	0.0	19,793

8.64 Number of Households Receiving Extension Advice on Livestock Feeds Processing by Source and District during the 2007/08 Agriculture Year

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Tarime	5,740	64.1	2,940	32.8	0	0.0	0	0.0	280	3.1	0	0.0	0	0.0	8,960
Serengeti	169	40.0	0	0.0	0	0.0	0	0.0	254	60.0	0	0.0	0	0.0	424
Musoma Rural	8,723	92.1	150	1.6	0	0.0	0	0.0	602	6.3	0	0.0	0	0.0	9,475
Bunda	97	14.3	0	0.0	0	0.0	0	0.0	581	85.7	0	0.0	0	0.0	678
Musoma Urban	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Rorya	3,612	95.5	86	2.3	0	0.0	0	0.0	86	2.3	0	0.0	0	0.0	3,784
Total	18,341	78.6	3,176	13.6	0	0.0	0	0.0	1,803	7.7	0	0.0	0	0.0	23,320

BEE KEEPING

8.65 Number of Agricultural Households involved in Honey Production/Collection and District, 2007/08 Agricultural Year

District	Agricultural Households Involved in Honey Production/Collection		Agricultural Households NOT Involved in Honey Production/Collection		Total	
	Number	%	Number	%	Number	%
Tarime	280	0.5	56,420	99.5	56,700	100
Serengeti	678	2.0	33,636	98.0	34,314	100
Musoma Rural	0	0.0	60,910	100.0	60,910	100
Bunda	97	0.2	39,119	99.8	39,216	100
Musoma Urban	0	0.0	764	100.0	764	100
Rorya	0	0.0	34,827	100.0	34,827	100
Total	1,055	0.5	225,676	99.5	226,731	100

8.66 Number of Agricultural Households Harvesting Honey by Type of Bee and District During the 2007/08 Agriculture Year

District	Was Honey Harvested?								
	Number of Agricultural Households that Poduced/Collected Honey			Number of Agricultural Households that did NOT Poduce/Collect Honey			Total		
	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total
Tarime	140	280	420	0	0	0	140	280	420
Serengeti	254	424	678	0	0	0	254	424	678
Musoma Rural	0	0	0	0	0	0	0	0	0
Bunda	97	0	97	0	0	0	97	0	97
Musoma Urban	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	0	0	0	0	0
Total	491	704	1,195	0	0	0	491	704	1,195

8.67 Number of Agricultural Households, Type of Bee Hives and type of Bees and District , 2007/08 Agricultural Year

District	Number of Improved Bee Hives						Number of Local Bee Hives					
	Stingless Bee		Sting Bee		Total		Stingless Bee		Sting Bee		Total	
	Number of households	Number of Hives	Number of households	Number of Hives	Number of households	Number of Hives	Number of households	Number of Hives	Number of households	Number of Hives	Number of households	Number of Hives
Tarime	140	140	280	840	420	980	140	280	280	140	420	420
Serengeti	254	424	424	254	678	678	254	169	424	1,864	678	2,033
Musoma Rural	0	0	0	0	0	0	0	0	0	0	0	0
Bunda	97	0	0	.	97	0	97	194	0	.	97	194
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0
Rorya	0	0	0	0	0	0	0	0	0	0	0	0
Total	491	564	704	1,094	1,195	1,658	491	643	704	2,004	1,195	2,647

8.68 Quantity of Honey Harvested and Sold by Type of Bees and District during the 2007/08 Agriculture Year

District	Stingless Bee				StingBee				Total	
	Honey Harvested		Honey Sold		Honey Harvested		Honey Sold		Honey Sold	Honey Harvested
	Quantity (Its)	%	Quantity (Its)	%	Quantity (Its)	%	Quantity (Its)	%		
Tarime	2,800	50	1,400	50	2,800	50	1,400	50	2,800	5,600
Serengeti	847	21	424	33	3,135	79	847	67	1,271	3,982
Musoma Rural	0	-	0	-	0	-	0	-	0	0
Bunda	968	100	968	100	.	-	.	-	968	968
Musoma Urban	0	-	0	-	0	-	0	-	0	0
Rorya	0	-	0	-	0	-	0	-	0	0
Total	4,616	44	2,792	55	5,935	56	2,247	45	5,039	10,550

8.69 Number of Agriculture Households by Location of Selling Honey and District during the 2007/08 Agriculture Year

District	Neighbour		Local market		Secondary market		Processing industry		Large scale farm	Trade at farm		Did not sell		Other		Total	
	Stingbee	Stingless Bee	Stingbee	Stingless Bee	Stingbee	Stingless Bee	Stingbee	Stingless Bee	Stingless Bee	Stingbee	Stingless Bee	Stingbee	Stingless Bee	Stingbee	Stingless Bee	Stingbee	Stingless Bee
Tarime	280	140	0	0	0	0	0	0	0	0	0	0	0	0	0	280	140
Serengeti	85	0	0	85	0	0	0	0	0	0	0	339	169	0	0	424	254
Musoma Rural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Bunda	0	0	0	97	0	0	0	0	0	0	0	0	0	0	0	0	97
Musoma Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Rorya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	365	140	0	182	0	0	0	0	0	0	0	339	169	0	0	704	491

8.70 : Average price of Honey (Tshs/litre) by Type of Bees and District during the 2007/08 Agriculture Year

District	Stingless Bee (Price per Litre)	Sting Bee (Price per Litre)	Average Price Per Litre
Tarime	1,500	900	1,100
Serengeti	1,333	160	600
Musoma Rural	-	-	-
Bunda	1,000	.	1,000
Musoma Urban	-	-	-
Rorya	-	-	-
Total	1,315	454	808

HOUSEHOLDS FACILITIES

9.1 Number of Households Reporting Average Number of Rooms and Type of Building Materials and District, 2007/08 Agricultural Year

District	Number of rooms	Iron Sheets		Tiles		Concrete		Asbestos		Grass/leaves.		Grass & mud.		Other (Specify)		Total	
		Mean	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Tarime	3	24,080	42.5	140	0.2	140	0.2	1,120	2.0	28,560	50.4	2,660	4.7	0	0.0	56,700	100
Serengeti	2	7,032	20.5	85	0.2	85	0.2	424	1.2	25,417	74.1	1,271	3.7	0	0.0	34,314	100
Musoma Rural	2	31,884	52.3	150	0.2	0	0.0	1,805	3.0	25,567	42.0	1,504	2.5	0	0.2	60,910	100
Bunda	2	17,526	44.7	194	0.5	0	0.0	2,324	5.9	18,591	47.4	581	1.5	0	0.0	39,216	100
Musoma Urban	2	543	71.1	0	0.0	17	2.2	0	0.0	204	26.7	0	0.0	0	0.0	764	100
Rorya	2	10,663	30.6	0	0.0	0	0.0	774	2.2	20,810	59.8	2,580	7.4	0	0.0	34,827	100
Total	2	91,729	40.5	569	0.3	242	0.1	6,446	2.8	119,150	52.6	8,596	3.8	0	0.1	226,731	100

9.2 Number of Households Reporting Average Number of Rooms and Type of Floor Materials by District 2007/08 Agricultural Year

District	Number of rooms	Earth, Sand, Dung		Wood Planks, Bamboo, Palm.		Parquet Or Polished Wood		Ceramic Tiles, Terrazzo		Cement		Other		Total	
		Mean	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Tarime	3	45,080	79.5	700	1.2	0	0.0	0	0.0	10,780	19.0	140	0.2	56,700	100
Serengeti	2	30,416	88.6	339	1.0	0	0.0	0	0.0	3,558	10.4	0	0.0	34,314	100
Musoma Rural	2	50,984	83.7	602	1.0	0	0.0	150	0.2	9,174	15.1	0	0.0	60,910	100
Bunda	2	31,857	81.2	1,549	4.0	0	0.0	0	0.0	5,810	14.8	0	0.0	39,216	100
Musoma Urban	2	577	75.6	0	0.0	0	0.0	0	0.0	187	24.4	0	0.0	764	100
Rorya	2	27,432	78.8	516	1.5	86	0.2	0	0.0	6,707	19.3	86	0.2	34,827	100
Total	2	186,346	82.2	3,706	1.6	86	0.0	150	0.1	36,217	16.0	226	0.1	226,731	100

9.3 Number of Households by Type of Wall Materials and District, 2007/08 Agricultural Year

District	Mean	Wall Materials																	
		Grass		Poles And Mud		Sun-Dried Bricks		Baked Bricks		Wood, Timber		Cement Blocks		Stones		Other (specify)		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	3	10,920	19.3	22,820	40.2	9,240	16.3	12,320	21.7	840	1.5	280	0.5	140	0.2	140	0.2	56,700	100
Serengeti	2	3,220	9.4	20,927	61.0	3,813	11.1	6,270	18.3	85	0.2	0	0.0	0	0.0	0	0.0	34,314	100
Musoma Rural	2	1,654	2.7	3,309	5.4	35,193	57.8	19,100	31.4	451	0.7	902	1.5	0	0.0	301	0.5	60,910	100
Bunda	2	1,937	4.9	8,521	21.7	15,783	40.2	12,104	30.9	0	0.0	97	0.2	97	0.2	678	1.7	39,216	100
Musoma Urban	2	17	2.2	51	6.7	509	66.7	119	15.6	0	0.0	51	6.7	0	0.0	17	2.2	764	100
Rorya	2	4,816	13.8	17,629	50.6	3,784	10.9	8,427	24.2	86	0.2	86	0.2	0	0.0	0	0.0	34,827	100
Total	2	22,563	10.0	73,256	32.3	68,322	30.1	58,340	25.7	1,462	0.6	1,416	0.6	237	0.1	1,136	0.5	226,731	100

9.4 Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year

District	Radio			Landline phone			Mobile phone			Iron			Wheelbarrow		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Tarime	44,100	12,600	56,700	280	56,420	56,700	26,880	29,820	56,700	21,560	35,140	56,700	7,420	49,280	56,700
Serengeti	22,791	11,523	34,314	254	34,059	34,314	11,523	22,791	34,314	11,861	22,452	34,314	2,372	31,941	34,314
Musoma Rural	40,757	20,153	60,910	602	60,309	60,910	21,657	39,253	60,910	18,950	41,960	60,910	2,707	58,203	60,910
Bunda	26,435	12,782	39,216	484	38,732	39,216	14,815	24,401	39,216	10,651	28,565	39,216	1,356	37,861	39,216
Musoma Urban	526	238	764	17	747	764	289	475	764	238	526	764	51	713	764
Rorya	23,820	11,007	34,827	258	34,569	34,827	14,103	20,724	34,827	14,017	20,810	34,827	2,322	32,505	34,827
Total	158,429	68,302	226,731	1,895	224,836	226,731	89,266	137,465	226,731	77,277	149,454	226,731	16,228	210,503	226,731
%	70	30	100	1	99	100	39	61	100	34	66	100	7	93	100

...cont.9.4 Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year

District	Bicycle			Vehicle			Television / Video			Refrigerator			Motor Cycle		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Tarime	32,340	24,360	56,700	1,260	55,440	56,700	2,660	54,040	56,700	420	56,280	56,700	2,100	54,600	56,700
Serengeti	18,470	15,844	34,314	847	33,466	34,314	1,186	33,127	34,314	339	33,975	34,314	763	33,551	34,314
Musoma Rural	36,697	24,214	60,910	3,309	57,602	60,910	1,654	59,256	60,910	602	60,309	60,910	902	60,008	60,910
Bunda	24,498	14,718	39,216	484	38,732	39,216	775	38,442	39,216	194	39,023	39,216	1,356	37,861	39,216
Musoma Urban	340	424	764	17	747	764	51	713	764	34	730	764	34	730	764
Rorya	20,466	14,361	34,827	1,806	33,021	34,827	602	34,225	34,827	258	34,569	34,827	602	34,225	34,827
Total	132,810	93,921	226,731	7,723	219,008	226,731	6,928	219,803	226,731	1,846	224,885	226,731	5,756	220,975	226,731
	59	41	100	3	97	100	3	97	100	1	99	100	3	97	100

9.5 Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2007/08 Agricultural Year

District	Mains electricity		Solar		Gas (hh biogas)		Hurican Lamp		Pressure Lamp		Wick Lamp		Candles		Fire Wood		Other (specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	140	0.2	700	1.2	0	0.0	19,320	34.1	3,220	5.7	32,760	57.8	140	0.2	420	0.7	0	0.0	56,700	100
Serengeti	339	1.0	169	0.5	0	0.0	9,320	27.2	932	2.7	23,299	67.9	0	0.0	254	0.7	0	0.0	34,314	100
Musoma Rural	451	0.7	602	1.0	150	0.2	23,763	39.0	1,654	2.7	34,140	56.0	0	0.0	150	0.2	0	0.0	60,910	100
Bunda	97	0.2	194	0.5	0	0.0	14,912	38.0	1,937	4.9	21,593	55.1	97	0.2	290	0.7	97	0.2	39,216	100
Musoma Urban	68	8.9	0	0.0	0	0.0	289	37.8	0	0.0	373	48.9	0	0.0	34	4.4	0	0.0	764	100
Rorya	344	1.0	258	0.7	0	0.0	10,749	30.9	1,462	4.2	21,842	62.7	86	0.2	86	0.2	0	0.0	34,827	100
Total	1,439	0.6	1,923	0.8	150	0.1	78,352	34.6	9,205	4.1	134,008	59.1	323	0.1	1,235	0.5	97	0.0	226,731	100

9.6 Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2007/08 Agricultural Year

District	Mains electricity		Solar		Gas (hh biogas)		Bottled gas		Charcoal		Firewood		Crop Residues		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	0	0	140	0	0	0	0	0	700	1	55,580	98	280	0	56,700	100
Serengeti	0	0	0	0	0	0	169	0	932	3	33,212	97	0	0	34,314	100
Musoma Rural	0	0	0	0	150	0	150	0	1,504	2	58,805	97	301	0	60,910	100
Bunda	0	0	0	0	97	0	0	0	484	1	37,957	97	678	2	39,216	100
Musoma Urban	0	0	0	0	0	0	0	0	85	11	679	89	0	0	764	100
Rorya	86	0	0	0	0	0	0	0	688	2	33,967	98	86	0	34,827	100
Total	86	0	140	0	247	0	320	0	4,393	2	220,201	97	1,345	1	226,731	100

9.7 Number of Agricultural Households Reporting Main Source of Drinking Water during wet season by District, 2007/08 Agricultural Year

District	Piped Water		Protected Well		Protected / Covered Spring		Uprotected Well		Unprotected Spring		Surface Water (Lake / Dam / River / Stream)		Covered Rainwater Catchment		Uncovered Rainwater Catchment		Water Vendor		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,260	2.2	6,440	11.4	2,240	4.0	32,060	56.5	5,740	10.1	6,020	10.6	420	0.7	2,380	4.2	0	0.0	140	0.2	56,700	100
Serengeti	2,288	6.7	8,642	25.2	932	2.7	16,098	46.9	1,864	5.4	1,694	4.9	339	1.0	1,949	5.7	0	0.0	508	1.5	34,314	100
Musoma Rural	2,557	4.2	6,918	11.4	752	1.2	22,559	37.0	8,272	13.6	14,438	23.7	451	0.7	1,504	2.5	301	0.5	3,158	5.2	60,910	100
Bunda	1,549	4.0	5,810	14.8	1,065	2.7	12,201	31.1	1,259	3.2	11,039	28.1	968	2.5	3,583	9.1	0	0.0	1,743	4.4	39,216	100
Musoma Urban	238	31.1	51	6.7	0	0.0	187	24.4	34	4.4	238	31.1	0	0.0	0	0.0	0	0.0	17	2.2	764	100
Rorya	172	0.5	774	2.2	430	1.2	13,501	38.8	5,074	14.6	9,889	28.4	516	1.5	2,838	8.1	0	0.0	1,634	4.7	34,827	100
Total	8,063	3.6	28,635	12.6	5,419	2.4	96,605	42.6	22,242	9.8	43,318	19.1	2,694	1.2	12,253	5.4	301	0.1	7,200	3.2	226,731	100

9.8 Number of Agriculture Households Distance to Main Source of Drinking Water in wet Season and District during, 2007/08 Agricultural Year

District	Less than 100 Metres		100 - 299 m		300 - 499 m		500 - 999 m		1.00- 1.99 Km		2.00 - 2.99 Km		3.00 - 4.99 Km		5.00 - 9.99 Km		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	6,300	11.1	10,500	18.5	2,100	3.7	16,800	29.6	16,800	29.6	0	0.0	4,200	7.4	0	0.0	56,700	100
Serengeti	2,542	7.4	0	0.0	0	0.0	12,709	37.0	16,521	48.1	1,271	3.7	0	0.0	1,271	3.7	34,314	100
Musoma Rural	13,536	22.2	0	0.0	2,256	3.7	11,280	18.5	24,815	40.7	6,768	11.1	2,256	3.7	0	0.0	60,910	100
Bunda	8,715	22.2	4,357	11.1	0	0.0	10,167	25.9	11,620	29.6	2,905	7.4	1,452	3.7	0	0.0	39,216	100
Musoma Urban	0	0.0	255	33.3	0	0.0	255	33.3	255	33.3	0	0.0	0	0.0	0	0.0	764	100
Rorya	5,160	14.8	3,870	11.1	1,290	3.7	10,319	29.6	10,319	29.6	3,870	11.1	0	0.0	0	0.0	34,827	100
Total	36,252	16.0	18,982	8.4	5,646	2.5	61,529	27.1	80,330	35.4	14,813	6.5	7,908	3.5	1,271	0.6	226,731	100

9.9 Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water During Wet Season by District, 2007/08 Agricultural Year

District	Less than 10 Minutes		10 - 19 Minutes		20 - 29 Minutes		30 - 39 Minutes		40 - 49 Minutes		50 - 59 Minutes		Above 1 Hour		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,200	7.4	2,100	3.7	2,100	3.7	29,400	51.9	0	0.0	4,200	7.4	14,700	25.9	56,700	100
Serengeti	1,271	3.7	2,542	7.4	1,271	3.7	19,063	55.6	3,813	11.1	0	0.0	6,354	18.5	34,314	100
Musoma Rural	11,280	18.5	0	0.0	2,256	3.7	33,839	55.6	0	0.0	0	0.0	13,536	22.2	60,910	100
Bunda	10,167	25.9	0	0.0	0	0.0	17,429	44.4	1,452	3.7	0	0.0	10,167	25.9	39,216	100
Musoma Urban	0	0.0	0	0.0	255	33.3	255	33.3	0	0.0	0	0.0	255	33.3	764	100
Rorya	2,580	7.4	1,290	3.7	1,290	3.7	20,638	59.3	1,290	3.7	2,580	7.4	5,160	14.8	34,827	100
Total	29,498	13.0	5,932	2.6	7,171	3.2	120,625	53.2	6,555	2.9	6,780	3.0	50,171	22.1	226,731	100

9.10 Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water During Wet Season by District, 2007/08 Agricultural Year

District	Less than 10 Minutes		10 - 19 Minutes		20 - 29 Minutes		30 - 39 Minutes		40 - 49 Minutes		50 - 59 Minutes		Above 1 Hour		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,200	7.4	2,100	3.7	2,100	3.7	29,400	51.9	0	0.0	4,200	7.4	14,700	25.9	56,700	100
Serengeti	1,271	3.7	2,542	7.4	1,271	3.7	19,063	55.6	3,813	11.1	0	0.0	6,354	18.5	34,314	100
Musoma Rural	11,280	18.5	0	0.0	2,256	3.7	33,839	55.6	0	0.0	0	0.0	13,536	22.2	60,910	100
Bunda	10,167	25.9	0	0.0	0	0.0	17,429	44.4	1,452	3.7	0	0.0	10,167	25.9	39,216	100
Musoma Urban	0	0.0	0	0.0	255	33.3	255	33.3	0	0.0	0	0.0	255	33.3	764	100
Rorya	2,580	7.4	1,290	3.7	1,290	3.7	20,638	59.3	1,290	3.7	2,580	7.4	5,160	14.8	34,827	100
Total	29,498	13.0	5,932	2.6	7,171	3.2	120,625	53.2	6,555	2.9	6,780	3.0	50,171	22.1	226,731	100

9.11 Number of Agricultural Households Reporting Main Source of Drinking Water during Dry season and District , 2007/08 Agricultural Year

District	Piped Water		Protected Well		Protected / Covered Spring		Unprotected Well		Unprotected Spring		Surface Water (Lake / Dam / River / Stream)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	1,120	2.0	5880	10.4	1,960	3.5	30,660	54.1	6,720	11.9	9,520	16.8
Serengeti	3,220	9.4	5422	15.8	339	1.0	16,691	48.6	1,525	4.4	5,846	17.0
Musoma Rural	2,858	4.7	8121	13.3	451	0.7	24,063	39.5	7,219	11.9	16,243	26.7
Bunda	2,033	5.2	6778	17.3	968	2.5	13,266	33.8	581	1.5	14,331	36.5
Musoma Urban	238	31.1	68	8.9	0	0.0	187	24.4	34	4.4	238	31.1
Rorya	258	0.7	1118	3.2	516	1.5	11,437	32.8	2,666	7.7	18,059	51.9
Total	9,726	4.3	27388	12.1	4,234	1.9	96,304	42.5	18,745	8.3	64,236	28.3

cont 9.11 Number of Agricultural Households Reporting Main Source of Drinking Water during Dry season and District , 2007/08 Agricultural Year

District	Covered Rainwater Catchment		Uncovered Rainwater Catchment		Water Vendor		Tanker Truck		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	560	1.0	280	0.5	0	0.0	0	0.0	0	0.0	56,700	100
Serengeti	254	0.7	1,017	3.0	0	0.0	0	0.0	0	0.0	34,314	100
Musoma Rural	150	0.2	1,354	2.2	301	0.5	0	0.0	150	0.2	60,910	100
Bunda	387	1.0	581	1.5	194	0.5	97	0.2	0	0.0	39,216	100
Musoma Urban	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	764	100
Rorya	0	0.0	774	2.2	0	0.0	0	0.0	0	0.0	34,827	100
Total	1,352	0.6	4,005	1.8	494	0.2	97	0.0	150	0.1	226,731	100

9.12 Number of Agriculture Households Distance by Main by Source of Drinking Water in Dry Season and District during, 2007/08 Agricultural Year

District	Less than 100 Metres		100 - 299 m		300 - 499 m		500 - 999 m		1.00- 1.99 Km		2.00 - 2.99 Km		3.00 - 4.99 Km		5.00 - 9.99 Km		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,200	7.4	6,300	11.1	2,100	3.7	16,800	29.6	23,100	40.7	0	0.0	4,200	7.4	0	0.0	56,700	100
Serengeti	0	0.0	0	0.0	1,271	3.7	8,896	25.9	19,063	55.6	1,271	3.7	2,542	7.4	1,271	3.7	34,314	100
Musoma Rural	6,768	11.1	0	0.0	2,256	3.7	9,024	14.8	29,327	48.1	6,768	11.1	6,768	11.1	0	0.0	60,910	100
Bunda	1,452	3.7	4,357	11.1	0	0.0	5,810	14.8	17,429	44.4	2,905	7.4	4,357	11.1	2,905	7.4	39,216	100
Musoma Urban	0	0.0	0	0.0	255	33.3	255	33.3	255	33.3	0	0.0	0	0.0	0	0.0	764	100
Rorya	1,290	3.7	2,580	7.4	1,290	3.7	7,739	22.2	10,319	29.6	5,160	14.8	2,580	7.4	3,870	11.1	34,827	100
Total	13,710	6.0	13,237	5.8	7,171	3.2	48,524	21.4	99,493	43.9	16,103	7.1	20,447	9.0	8,045	3.5	226,731	100

**9.13 Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water in Dry season and District , 2007/08
Agricultural Year**

District	Less than 10 Minutes		10 - 19 Minutes		20 - 29 Minutes		30 - 39 Minutes		40 - 49 Minutes		50 - 59 Minutes		Above 1 Hour		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	4,200	7.4	2,100	3.7	4200.0	7.4	16,800	29.6	0	0.0	4,200	7.4	25,200	44.4	56,700	100
Serengeti	1,271	3.7	1,271	3.7	0.0	0.0	11,438	33.3	0	0.0	1,271	3.7	19,063	55.6	34,314	100
Musoma Rural	4,512	7.4	2,256	3.7	4511.9	7.4	13,536	22.2	0	0.0	0	0.0	36,095	59.3	60,910	100
Bunda	4,357	11.1	1,452	3.7	0.0	0.0	13,072	33.3	1,452	3.7	0	0.0	18,882	48.1	39,216	100
Musoma Urban	0	0.0	0	0.0	254.6	33.3	0	0.0	0	0.0	0	0.0	509	66.7	764	100
Rorya	0	0.0	0	0.0	1289.9	3.7	7,739	22.2	2,580	7.4	0	0.0	23,218	66.7	34,827	100
Total	14,340	6.3	7,079	3	10,256	4.5	62,585	27.6	4,032	1.8	5,471	2.4	122,967	54.2	226,731	100

**9.14 Number of Agricultural Households Reporting type of TOILET the Household Normally Use by District , 2007/08
Agricultural Year**

District	No toilet/bush		Flush toilet		Pit latrine - traditional		Improved pit latrine - hh owned		Other type (specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	12,320	22	560	1	40,180	71	3,640	6	0	0	56,700	100
Serengeti	7,710	22	339	1	21,944	64	4,236	12	85	0	34,314	100
Musoma Rural	10,829	18	1,203	2	45,720	75	2,707	4	451	1	60,910	100
Bunda	7,069	18	194	0	30,889	79	1,065	3	0	0	39,216	100
Musoma Urban	255	33	0	0	340	44	170	22	0	0	764	100
Rorya	10,405	30	258	1	19,177	55	4,902	14	86	0	34,827	100
Total	48,587	21	2,554	1	158,249	70	16,720	7	622	0	226,731	100

9.15 Number of Agricultural Households Reporting Number of Meals the Household Normally take per Day by District, 2007/08 Agricultural Year

District	Number of Meals							
	One		Two		Three		Total	
	Number	%	Number	%	Number	%	Number	%
Tarime	5,740	10	21,980	39	28,980	51	56,700	100
Serengeti	339	1	17,030	50	16,945	49	34,314	100
Musoma Rural	752	1	48,428	80	11,731	19	60,910	100
Bunda	97	0	29,727	76	9,393	24	39,216	100
Musoma Urban	17	2	509	67	238	31	764	100
Rorya	774	2	18,059	52	15,995	46	34,827	100
Total	7,719	3	135,732	60	83,281	37	226,731	100

9.16 Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceding Week by District, 2007/08 Agricultural Year

District	0		1		2		3		4		5		6		7		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	10,220	18.0	21,840	38.5	13,300	23.5	3,500	6.2	6,440	11.4	980	1.7	420	0.7	0	0.0	56,700	100
Serengeti	6,100	17.8	17,114	49.9	7,710	22.5	2,203	6.4	847	2.5	339	1.0	0	0.0	0	0.0	34,314	100
Musoma Rural	29,177	47.9	19,551	32.1	8,121	13.3	2,707	4.4	902	1.5	150	0.2	0	0.0	301	0.5	60,910	100
Bunda	18,591	47.4	11,910	30.4	6,294	16.0	1,937	4.9	194	0.5	97	0.2	194	0.5	0	0.0	39,216	100
Musoma Urban	340	44.4	289	37.8	119	15.6	17	2.2	0	0.0	0	0.0	0	0.0	0	0.0	764	100
Rorya	9,201	26.4	14,963	43.0	7,137	20.5	3,010	8.6	344	1.0	0	0.0	86	0.2	86	0.2	34,827	100
Total	73,629	32.5	85,667	37.8	42,682	18.8	13,373	5.9	8,727	3.8	1,566	0.7	700	0.3	387	0.2	226,731	100

9.17 Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceding Week by District, 2007/08 Agricultural Year

District	0		1		2		3		4		5		6		7		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	17,780	31.4	18,760	33.1	12,740	22.5	3,500	6.2	2,800	4.9	840	1.5	140	0.2	140	0.2	56,700	100
Serengeti	12,793	37.3	12,285	35.8	4,999	14.6	2,542	7.4	1,186	3.5	424	1.2	85	0.2	0	0.0	34,314	100
Musoma Rural	2,557	4.2	7,069	11.6	12,934	21.2	9,625	15.8	8,573	14.1	7,821	12.8	4,361	7.2	7,971	13.1	60,910	100
Bunda	5,713	14.6	4,164	10.6	7,359	18.8	4,938	12.6	2,421	6.2	2,227	5.7	1,646	4.2	10,748	27.4	39,216	100
Musoma Urban	0	0.0	68	8.9	17	2.2	119	15.6	204	26.7	119	15.6	136	17.8	102	13.3	764	100
Rorya	688	2.0	7,567	21.7	6,449	18.5	5,504	15.8	7,395	21.2	4,042	11.6	1,462	4.2	1,720	4.9	34,827	100
Total	39,531	17.4	49,913	22.0	44,498	19.6	26,228	11.6	22,579	10.0	15,472	6.8	7,830	3.5	20,681	9.1	226,731	100

9.18 Number of Agricultural Households Reporting the Status of Food Satisfaction of the Household During the Preceding Year by District, 2007/08 Agricultural Year

District	Never		Seldom		Sometimes		Often		Always		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	16,520	29	20,720	37	11,620	20	2,380	4	5,460	10	56,700	100
Serengeti	14,234	41	11,523	34	3,982	12	2,203	6	2,372	7	34,314	100
Musoma Rural	18,048	30	26,470	43	3,008	5	7,670	13	5,715	9	60,910	100
Bunda	7,553	19	20,431	52	4,454	11	3,680	9	3,099	8	39,216	100
Musoma Urban	272	36	340	44	17	2	136	18	0	0	764	100
Rorya	5,504	16	11,695	34	6,278	18	8,857	25	2,494	7	34,827	100
Total	62,129	27	91,178	40	29,359	13	24,926	11	19,140	8	226,731	100





9.19 Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year

District	Sale of food crops		Sale of Livestock		Sale of livestock products		Sale of cash crops		Sale of forest products		Business income		Wages or salaries in cash	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	42,420	75	2,520	4	420	1	280	0	420	1	5,180	9	840	1
Serengeti	25,926	76	2,033	6	932	3	508	1	85	0	1,186	3	1,356	4
Musoma Rural	47,074	77	3,008	5	1,805	3	451	1	602	1	752	1	902	1
Bunda	20,044	51	3,002	8	2,227	6	5,422	14	290	1	1,259	3	1,356	3
Musoma Urban	390	51	17	2	17	2	17	2	0	0	51	7	34	4
Rorya	26,830	77	2,322	7	774	2	172	0	0	0	946	3	430	1
Total	162,684	72	12,902	6	6,175	3	6,851	3	1,397	1	9,374	4	4,918	2

...cont.9.19 Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year

District	Fishing		Other		ther casual cash earnings		Cash remittances		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Tarime	140	0	140	0	4,060	7	280	0	0	0	56,700	100
Serengeti	0	0	339	1	1,610	5	339	1	0	0	34,314	100
Musoma Rural	1,354	2	902	1	3,158	5	902	1	0	0	60,910	100
Bunda	2,033	5	97	0	2,905	7	387	1	194	0	39,216	100
Musoma Urban	170	22	0	0	51	7	17	2	0	0	764	100
Rorya	946	3	430	1	1,290	4	602	2	86	0	34,827	100
Total	4,643	2	1,908	1	13,074	6	2,528	1	280	0	226,731	100

APPENDIX III: QUESTIONNAIRE

United Republic of Tanzania							
ACQI	CONFIDENTIAL						
							
Small holder/Small Scale Farmer questionnaire							
Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>							
Agricultural Sample Census 2007/2008							
							
							
Enumerator Name Signature							
Date of Enumeration							
<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> d d m m y y y y	Start Time End Time						
	<table border="1" style="border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Hour</th> <th style="padding: 5px;">Minutes</th> </tr> </thead> <tbody> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> </tbody> </table>	Hour	Minutes				
Hour	Minutes						
Field level checking by:							
District Supervisor	Name Signature Date / /						
Regional Supervisor	Name Signature Date / /						
National Supervisor	Name Signature Date / /						
I To be filled by the supervisor ONLY after Field/farm level checking of the enumeration process. This should be countersigned by the Supervisor in front of the enumerator							
Distric checking in Office							
District Supervisor	Name Signature Date / /						
All questionnaires must be checked at the district office.							
For Use at Regional Level Only							
Data entered by:	Name Signature Date / /						
Quened	Name Signature Date / /						
See the back page for details of queries							
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Governemnet of Zanzibar							

Definition and working page for page 1

General Definitions

Who is a Smallholder /Small Scale farmer?

Should have one or more of the following: in the 2007/08 farming season had one or more cultivated and planted farms. The farm land may either be owned, rented, borrowed. The farmer may also be raising 1 and 50 head of cattle, and/or between 5 and 100 head of sheep/Goats/Pigs, and/or between 50 and 1000

Household: A group of people who occupy the whole of part one or more housing units and makes joint provision for food and/or other household items. Usually such a group comprises a husband, wife, and their children. Other relatives may be members of the household if they happen to live and get food provisions from the same household. People who live together and eat from the same pot may be considered as members of the same household even if they stay in separate dwellings. An individual who lives and eat alone is considered as an independent household.

Household Head: A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for decision making regarding use of household resources..

Agricultural Holding: This is an economic unit of agricultural production under single management. This unit may have been grown various crops. For the purpose of the survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/five pigs or fifty chicken/ducks/turkeys during the agricultural year 2007/08 (from October 2007 to September 2008).

Question Specific Definitions:

Type of Agriculture holding Codes (Q2.1):

Crops only: A holding is referred to be a crop only holding if it has cultivated at least one piece of land. This also applies to all households owning or have kept livestock whose number does not qualify such households to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/rabbits).

Livestock only: A holding is referred to be a livestock only holding if it has exercised livestock husbandry only during the 2007/08 agricultural year.

NOTE

For agricultural holding only and pastoralist holding only; the number of livestock should be at least one head of cattle, not less than five goats/sheep/pigs, not less than 50 chickens /turkeys /rabbits. This also applies to households having or operated less than 25 sq meter of cultivated land (which does not qualify the household to be considered as agricultural holding) but has the number of livestock that makes the holding qualifies to be considered as livestock holding.

Pastoralist holding: This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

Both crops and livestock: A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households have own or kept livestock whose number qualify such household be considered as an agricultural holding.

Procedures for questions:

Q 2.1 Type of agriculture household/holding

Using the options under the question classify the type of agriculture household/holding

Note: If the household had an acre of crops and raised 40 chickens during 2007/08, it is classified as 'Crops only' as the number of chickens does not qualify the household as a livestock holding.

1.0 IDENTIFICATION DETAILS		
1.1 Location		Identification
Na.	Location Name	Codes
1.1.1	Region	<input type="text"/>
1.1.2	District	<input type="text"/>
1.1.3	Ward	<input type="text"/>
1.1.4	Village	<input type="text"/>
1.2 Details of the respondent or household head		
Na.		Codes
1.2.1	Name and number of local leader	<input type="text"/>
1.2.2	Name and number of household head	<input type="text"/>
1.2.3	Sex of household head	<input type="text"/>
1.2.4	Name of respondent	/
1.2.5	Relationship of Respondent to household head	<input type="text"/>
<p>Relationship to household head codes (Q 1.2.5)</p> <p>Head of Household1 Son /Daughter.....3 Grandson/Granddaughter.....5 No relationship.....7</p> <p>Spouse.....2 Father/Mother.....4 Other relatives.....6</p>		
2.0 ACTIVITIES OF THE HOUSEHOLD		
2.1	Type of Agriculture Household	<input type="text"/>
<p>Household agricultural activities codes(Q 2.1)</p> <p>Crops only.....1 Livestock only2 Pastoralist.....3 Crops and Livestock4</p>		

Definition and working page for page 2

Question Specific Definitions:

Relation to head (Col 2):

<p>Household Head: A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.</p>

Read and Write (Col 8)

Any other language: Must be a written language.
--

<p>For someone who can read and write in Kiswahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Kiswahili the the correct code is 2. Code 4 should only be used for any other language which is not English or Kiswahili.</p>
--

Education Level Reached (Col 10):
--

<p>Ask the respondent the highest educational level reached. This aims at establishing whether at the time of enumeration the member of the household is studying has completed or has never studied. Make further enquiry for the level of education reached for those who have completed studies. Establish if the member had attained any training after graduation for the purposes for completing column number 9. For those who still continue attending studies during the period of this survey, establish their learning stage. For instance for a household member who studied up to Standard Three but did not complete his/her education at this level, then his/her highest education level reached is Standard Two. For those indicated under code 3 (not studied) in column 8 should be marked code 99 (Not applicable) in column 9.</p>

Section 3.0 Note

<p>Make sure that you define the hh proper to ensure that all the members of the hh are included. Ensure that you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.</p>

<p>If you notice that the hh is large or you see many people around the hh and you have been given a smaller number of the hh members, make further enquiries until you are sure that you have captured all the hh members.</p>

Section 3.0 Household information.

- | |
|---|
| <p>ii) For each household member complete columns 1,2,3 and 3
After completing columns 1, 2, 3 and 3 for each household member, go back to the first household member and complete the remaining columns for that member.
iii) Repeat step 2 for the rest of the household members.</p> |
|---|

3.0 HOUSEHOLD INFORMATION													
3.1 Give details of personal particulars of all hh members beginning with hh head							Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>						
Na.	Names of hh members <i>(Start with hh Head)</i>	Ex Start with hh Head	Sex M = 1 F = 2	Age <i>(98 years or more enter 97, under one year old write 00)</i>	Marital Status	Parental Survival		Not applicable for children under 5 years					
						Mother	Father	Read and Write	Education status	Level of education attained	On farm engagements	Main activity	Off farm income yes=1 no=2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
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Relationship to household head (Col 2)

Head of household.....1
 Female/Male.....2
 Son/Daughter.....3
 Father/Mother.....4
 Grandson/daughter...5
 Other Relatives.....6

Marrital Status(Col 4)

Married.....1
 Single.....2
 Co-habiting3
 Divorced
 Separated.....4
 Widow/widower.....5

Survival of Parents(Col 6 & 7)

Yes.....1 No2
 Dont't know3

Ed. ucation Level(Col 9)

Studying1
 Has completed2
 Never been to school3

Reading and writing (Col 8)

Kiswahili.....1
 English2
 Kiswahili and English.....3
 Lugha nyingine.....4
 Cannot read or write.....5

Education Level (Col 10)

<u>Primary education</u>	<u>Secondary Education</u>
Below Standard One.....00	Form One.....11
Standard One01	Form Two12
Standard Two.....02	Form Three.....13
Standard Three.....03	Form Four14
Standard Four.....04	Form Five15
Standard Five.....05	Form Six16
Standard Six06	Training after Secondary Ed....17
Standard Seven.....07	University and other Tertiary Ed...8
Standard Eight ..08	Adult Education.....19
Training after Primary Ed...09	Not applicable99
Pre Form One.....10	

Involvement in farming activitie (Col 11)

Works on farm full time.....1
 Works on farm part time....2
 Rarely works on farm.....3
 Never works on farm.....4

Main activity (Col 12)

Crop farming:01.
 Livestock farming/herding: ...02.
 Pastoralist03
 Fishing04
 Fish farming05
 Paid employment/
 Government/parastatal.....06
 Private/NGOs07
 Self employee (Off-farm activities)
 - With employees08
 - Without employees09
 Non paid household member (off-farm activities)10.
 Unemployed but available for work11
 Unemployed but unavailable for work..12
 House mother13
 Student14
 Unable to work too old, too young, retired, disabled, child 15
 Others (specify)98

Off-farm Income (Col 13)

These are income made from activities NOT on the HH's farming activities. This can be from formal employment (e.g. in government etc.), temporary jobs, casual labourers and income generation activity and includes working for cash on other people's farms. Indicate whether each member was involved in an off farm income generating activity during 2007/08

Definitions and working page for page 3

Definitions for Key Specific Questions

Section 4.1 – Land Access/Ownership

These are areas that were used by the households for the 2007/08 farming season

Lease/Certificate of Ownership: Area under lease/certificate of ownership refers to the areas which were issued by the government. The household possesses government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

Customary Law: This refers to the land which the household does not have an official government but its right of use is granted by the traditional leaders.

Bought: This refers to the areas of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

Rented from others: Land rented from others for cash or for a fixed amount in crop produce (e.g. fixed number of bags at harvest).

Borrowed: use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

Share cropping: where the household is permitted to use land which is then paid for from a percentage of the harvested crop

Section 4.2 Land Use

Temporary crops: are sown and harvested during the same agricultural year

Permanent crops: are crops once sown or planted last for some years and need not to be replanted after each annual harvest.

Permanent crops /mixed crops: This is a mixture of permanent and seasonal crops. The two crops can either be randomly planted together or in a particular pattern e; for example intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed).

This is further subdivided into:

Mixture of Permanent crops – two or more permanent crops grown together

Mixture of Permanent and Temporary crops – permanent crop and annual crop together

Mixture of Temporary crops– two or more temporary, annual crops grown together

Pasture land: this is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or where other means have been applied to improve the pasture. Or it can be natural pasture.

Natural Bush: Land which has naturally grown shrubs and trees and is considered productive but is not utilized for farming or livestock production.

Overview to section 4

Overview to section 4

Section 4.0: Preliminary note

Land Access/Ownership

Land access/ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between household members. It does not include official communal land that the household has sole access to for example a plot for crop farming in the communal area.

Procedures for questions

Section 4.0 – Land Ownership

1. Ask the respondent if he knows the total areas of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1, 1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information)
4. If the total area is different find out which one is correct and make

Section 4.2: Land Use

1. Ask the respondent the area of the different land use categories the household has sole access to (Q4.2.1 to 4.2.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total areas should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

4.0 LAND ACCESS/OWNERSHIP/TENURE			
4.1 LAND ACCESS/OWNERSHIP/TENURE		Identification <input type="text"/>	
Give details on Area owned by the household during 2007/08 agricultural season.			
Give area as reported by the respondent in acres		Area in Acre	
4.1.1	Area under certificate of ownership	<input type="text"/> · <input type="text"/>	4.1.8 Was the whole household area used during the 2007/08 agricultural season? (Yes=1, No=2) <input type="checkbox"/>
4.1.2	Area owned under customary law	<input type="text"/> · <input type="text"/>	4.1.9 Do you consider to have enough land for your household? (Yes=1, No=2) <input type="checkbox"/>
4.1.3	Area bought	<input type="text"/> · <input type="text"/>	
4.1.4	Area rented from others	<input type="text"/> · <input type="text"/>	
4.1.5	Area borrowed from others	<input type="text"/> · <input type="text"/>	
4.1.6	Area share cropped from others	<input type="text"/> · <input type="text"/>	4.1.10 Is there any female who owns land or has customary rights to land ownership in this household? (Yes=1, No=2) <input type="checkbox"/>
4.1.7	Area under other forms of tenure	<input type="text"/> · <input type="text"/>	
Total area		<input type="text"/> · <input type="text"/>	
4.2 LAND USE			
Area used by the household for various agricultural activities during 2007/08 agricultural season			
Enter area as reported by the respondent in acres		Area in acre	Working space for calculations
4.2.1	Area planted temporary monocrops	<input type="text"/> · <input type="text"/>	
4.2.2	Area planted temporary mixed crops (e.g. maize and beans)	<input type="text"/> · <input type="text"/>	
4.2.3	Area planted permanent monocrops	<input type="text"/> · <input type="text"/>	
4.2.4	Area planted permanent mixed crops (e.g. banana, coffee, trees)	<input type="text"/> · <input type="text"/>	
4.2.5	Area planted permanent and temporary mixed crops (e.g. maize and banana)	<input type="text"/> · <input type="text"/>	
4.2.6	Area under pasture	<input type="text"/> · <input type="text"/>	
4.2.7	Area under fallow	<input type="text"/> · <input type="text"/>	
4.2.8	Area under natural forest	<input type="text"/> · <input type="text"/>	
4.2.9	Area planted trees	<input type="text"/> · <input type="text"/>	
4.2.10	Area rented to others	<input type="text"/> · <input type="text"/>	
4.2.11	Area unsuitable for agriculture	<input type="text"/> · <input type="text"/>	
4.2.12	Uncultivated arable land (minus area under fallow)	<input type="text"/> · <input type="text"/>	
Total area		<input type="text"/> · <input type="text"/>	

Definitions and working page for page 4

<i>Working table for the calculation area for annual mixed crops</i>					
Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total Area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			%	Area for	
			temporary	permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Mixed crops	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			%	Area for	
			temporary	temporary crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Planted Area: Area in acre the household was able to plant
Harvested Area: Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

Temporary/Annual Crops
 Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

Cash crop codes:

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

Crop Codes(Creal / Tubers/ Roots):

Code	Crop
11	Maizei
12	Paddy
13	Sorghum
14	Buirush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatoes
23	Irish Potatyoes
24	Yams
25	Cocoyamsi
26	Onions
27	Gingeri

Vegetable Codes:

Code	Crop
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkin
93	Cucumber
94	Egg plant
95	Water mellon
96	Cauliflower
06	Melllon
05	nyanyachungu
02	Ocra
03	Radish
01	Green Beans
04	Bizani

Crop Codes Legumes and Oil

Code	Crop
31	Beans
32	Cowpeas
33	Green Gram
34	Chick Peas
35	Dengu
36	Bambara nuts
37	Njegere
41	Sun flower
42	Simsim
43	Ground uts
47	Soya beans
48	Caster Seed

Instructions for calculating the area of mixed crops in a mixture

A. If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions.

B. If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

C: Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:

- (i) List each of the permanent crop in collumn b and enter the ground area per acre for each permanent crop (from instructions for page 8) in collum d.
- (ii) Enter the number of permanent trees in the mix in collumn e as will be provided to you by the respondent
- (iii) Calculate the area occpied by each crop by multiplying collumn d and collumn e and sum up these to obatin the total area of permanent crops in the mix.
- iv) To obatin the area for tempofrary crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.
- (v) Proceed to step 1 to calculate the area under each temporary crop.

1. Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.
2. **Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.**
3. After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Collumn 3.
4. **Once the quantity harvested is obtained , calcakute the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box.** If there is significantly difference, check the area and the amount harvested.

5.0	PERMANENT AND TEMPORARY CROP PRODUCTION													Identification									
5.1	ANNUAL CROPS AND VEGETABLE PRODUCTION-SHORT RAINY SEASON																						
	Did your household plant any crop during short rainy season for 2007/08 agricultural year? Yes = 1, No = 2, (If the answer is yes proceed to Section 5.3)																						
5.1.1	Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year																						
Name of Crop	Planting		Main crop owner: Enter the number of the hh member from page 2 on information for hh members	Use of Seeds					Irrigated area	Pembejeo				Use of chemicals against weeds (If 6 is the answer in col 11 proceed to col 20)									
	Crop code	Actual area planted (acre)		The type of seed planted	Use of seeds	Quantity		Cost (Tshs)		Cultivated area	Type of fertilisers used	Quantity of fertilisers		Coist (Tshs)	Cultivated area	Quantity of agrochemicals		Cost					
						Quantity	Quantity used					Measurment	Quantity used			Quantity	Quantity used						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)					
Total area planted																							
<u>Type of seeds planted (Col 5)</u> Local seeds...1 Improved seeds.....2			<u>Use of agricultural seeds (Col 6)</u> For the whole crop.....1 3/4 of the whole crop.....2 1/2 of the whole crop.....3 1/4 of the whole crop.....4 Under 1/4 of the whole crop...5					<u>Quantity (Col 7)</u> Kg.....1 Seedlings...2 Gram.....3			<u>Use of farm inputs (SCoH10,11 & 16)</u> For the whole crop.....1 3/4 of the whole crop.....2 1/2 of the whole crop.....3 1/4 of the whole crop.....4 Under 1/4 of the whole crop...5 Not used6				<u>Type of fertilisers (Col 12)</u> Organic fertiliser.....1 Inorganic fertilisers.....2			<u>Quantity (Col 17)</u> Kg.....1 Litre.....2 Gram.....3 Millilitre....6			<u>Kipimo (S/wima 13)</u> Kilo1 Lita.....2 Milli-lita..3		
<u>Main crop owner: (Col 4)</u> Enter number of hh member from page 2 on details on hh members in Q. 3																							

5.2 ANNUAL CROPS AND VEGATBLE PRODUCTION-LONG RAINY SEASON CONTINUED ...															
5.2.1 Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year											Identification <input type="text"/>				
Name of crop	Crop code	Use of fungicides (If 6 is the answer in col 20 proceed to col 24)				Use of pesticides (If 6 is the answer in col 24 proceed to col 28)				Harvesting and Storage			Marketing		
		Area used	Size		Cost	Area used	Size		Cost	Quantity harvested (kg)	Quantity stored (kg)	Main storage methods	Quantity sold (kg)	Where was the crop mostly sold?	Main problems in crop marketing
			Quantity	Used			Quantity	Used							
(1)	(2)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
.....															
.....															
.....															
.....															
.....															
.....															
.....															
.....															
.....															
.....															

Use of farm inputs (Col 20&24)

For the whole crop.....1

3/4 of the whole crop.....2

1/2 of the whole crop.....3

1/4 of the whole crop.....4

Under 1/4 of the whole crop...5

Not used6

Quantity (Col 21&25)

Kilg.....1

Litre.....2

Gram.....3

Millilitre....6

Main Storage mechanisms (Col 30)

Local storage facilities.....1

Improved Local storage facilities2

Modern store.....3

Open drums/sacks.....4

Cealed drums.....5

In heaps.....6

not Stored.....7

Other means (Specify).....8

Where the crop was sold(Col 32)

Neighbours.....01 Private Businessman.....08

Open markets.....02 Contract farming.....09

Auctions.....03 Not sold.....10

Main Market.....04 Others.....98

Cooperative Union....05

Farmers Association...06

Large Scale farm.....07

Marketing problems (Col 33)

Very low prices.....01 No problem11

No transport.....02 Others (Specify).....98

High transport costs.....03 Not applicable99

Lack of crop buyers04

Markets located far away .05

Problems with farmers Associations 06

Problems with cooperative Unions7

Problems with Businessmen Association ...8

Strigent Government Conditions ...9

Definitions and working page for page 5**Storage (Col. 30, Q 5.1.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storagesrutures improved through modern technology.

Marketing Challenges Q 5.1.1 Col. 33:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulatina transpotation and selling of crops.

Inputs (Q 5.1.1)

- Farm Yard Manure:** An organics fertiliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical usde in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

Questions specific definitions**Q 5.1.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

Crops storage is keeping/reserving crops in a container or a special place for future use.

Q 5.1.1 Col 31

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

Working area/calculation space

Definitions and working page for page 6

Working table for the calculation area for annual mixed crops

Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			n
Permanent crop 2		0.000			n
Permanent crop 3		0.000			n
Permanent crop 4		0.000			n
Total Area for mixed crops			Total area for permanent crops		n
The remaining area for temp crops				% of temporary	Area for permanent crop
Name of the crop temp/permanent 1				
Name of the crop temp/permanent 2				
Name of the crop temp/permanent 3				
Check total area			Check total area for temporary crops		

Mazao mchanganyiko 2	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			n
Permanent crop 2		0.000			n
Permanent crop 3		0.000			n
Permanent crop 4		0.000			n
Total area for mixed crops			Total area for permanent crops		n
The remaining area for temp crops				% of temporary	Area for temporary crop
Name of the crop temp/permanent 1				
Name of the crop temp/permanent 2				
Name of the crop temp/permanent 3				
Check total area			Check total area for temporary crops		

Planted Area: Area in acre the household was able to plant

Harvested Area: Area in acre the household was able to harvest a large portion of harvests. This is the same as the area planted minus the area that was destroyed by floods/ pests /

Temporary/Annual Crops
Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

Cash crop codes:

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

Crop Codes (Cereal / Tubers/ Roots):	Vegetable Codes:	Crop Codes Legumes and Oil	
Code Crop	Code Crop	Code Crop	
11	Maize	31	Beans
12	Paddy	32	Cowpeas
13	Sorghum	33	Green Gram
14	Burush Millet	90	Chillies
15	Finger Millet	91	Amaranths
16	Wheat	92	Pumpkin
17	Barley	93	Cucumber
22	Sweet Potatoes	94	Egg plant
23	Inish Potatoes	95	Water melon
24	Yams	96	Cauliflower
25	Cocoyams	06	Mellion
26	Onions	05	nyanyachungu
27	Ginger	02	Okra
		03	Radish
		01	Green Beans
		04	Bizari

Instructions for calculating the area of mixed crops in a mixture

A. If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions

B. If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

C: Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:

- List each of tyhe permanent crop in column b and enter the ground area per acre for each permanent crop (from instructions for page 8) in colum d.
- Enter the number of permanent trees in the mix in column e as will be provided to you by the respondent
- Calculate the area occupied by each crop by multiplying column d and column e and sum up these to obtain the total area of permanent crops in the mix.
- To obtain the area for temporary crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.

(v) Proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.
- Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.**
- After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Column 3.
- Once the quantity harvested is obtained , calkiculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly difference, check the area and the amount harvested.**

5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION														Identification			
Does your household have any permanent/perennial crops or fruit trees Yes =1, No = 2, (If answer is NO proceed to Section 6.0)																	
5.3.1 Give details on permanent/perennial crops or fruit trees																	
Production Section					Farm inputs												
Name of permanent/perennial crop	crop code of permanent / perennial crop/ fruit trees	Monocrops Area for trees/seedling/branch/bushes	Mixed crops		Main crop owner: Enter the number of the hh member from page 2 on information for hh	Uses of seeds						Irrigation	Uses of Fertilisers (If 6 is the answer in col 13 proceed to col. 17)				
			Area for mixed crops (Acre)	Number of Tplants/ trees in the crop mix of permanent and perennial crop		Type of planted seeds	Cultivated area	Size		Cost (Ths)	Area used		The type of fertiliser used	Quantity of fertiliser (kg)	Cost (Ths)		
								Quantity	Used								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		

Type of seed planted (Col 7)
Local seeds.....1
Improved seeds.....2
Don't know/ Not applicable...3

Main crop owner (Col 6):
Enter the number of the hh member from page 2 on information for hh members in Q 3

Area cultivated (col. 8)
For the whole crop.....1
3/4 of the whole crop.....2
1/2 of the whole crop.....3
1/4 of the whole crop.....4
Under 1/4 of the whole crop....

Quantity (Col 9)
Kg1
Seedlings...2
Gram.....3

Use of farm inputs (Col 12 & 13)
For the whole crop.....1
3/4 of the wholecrop.....2
1/2 of the whole crop.....3
1/4 of the whole crop.....4
Under 1/4 of the whole crop...5
Not used 6

Type of fertilisers (Col 14)
Organic fertiliser... .. 1

5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION CONTINUED																			Identification					
5.3.1 Give details on permanent/perennial crops or fruit trees during 2007/08 agricultural year																								
Name of crop	Crop code	Uses of weeds control chemical (If 6 is the answer in col 17 Proceed to col 21)				Use of fungicides (If 6 is the answer in col 20 proceed to col 24)				Use of pesticides (If 6 is the answer in col 25 proceed to col 29)				Crop harvesting and storage					Marketing					
		Area used	Size		Cost	Area used	Size		Cost	Area used	Size		Cost	Harvested area (acre)	Quantity of mature plants	Quantity harvested (kg)	Quantity stored (kg)	Njia Kuu ya kuhifadhi	Quantity sold (kg)	Main marketing problem				
			Quantity	Used			Quantity	Used			Quantity	Used												
(1)	(2)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)				

Area used (Col 20&24)

For the whole crop.....1
 3/4 of the whole crop.....2
 1/2 of the whole crop.....3
 1/4 of the whole crop.....4
 Under 1/4 of the whole crop...5

Main Storage mechanisms (Col 33)

Local storage facilities.....1
 Improved Local storage facilities2
 Modern store.....3
 Open drums/sacks.....4
 Cealed drums.....5
 In heaps.....6
 not stored.....7
 Other means (Specify).....8

Marketing problems (Col 35)

Very low prices.....01 No problem.....11
 No transport.....02 Others (Specify).....98
 High transport costs.....03 Not applicable.....99
 Lack of crop buyers.....04
 Markets located far away...05
 Problems with farmers Associations 06
 Problems with cooperative Unions....7
 Problems with Businessmen Association ...8
 Stringent Government Conditions ...9

Quantity (Col 18, 22, & 26)

Kilg1
 Litre.....2
 Gram... ..3
 Millilitre... ..6

Definitions and working page for page 7

Storage (Col. 30, Q 5.2.1):

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storagesrutures improved through modern technology.

Marketing Challenges Q 5.2.1 Col. 33:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulatind transportation and selling of crops.

Inputs (Q 5.2.1)

- Farm Yard Manure:** An organics fertliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical usde in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

Working area/calculation space

Questions specific definitions

Q 5.2.1. Instructions on crops storage:

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

Crops storage is keeping/reserving crops in a container or a special place for future use.

Q 5.2.1 Col 33

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

Definitions and working page for page 8

Permanent Crops:

These are crops once planted last longer in the farm and need not be replanted after each annual harvest. Most of the permanent plants include tress such as coconut tress, apple trees, grape trees, banana trees, pineapple trees etc.

Number of Trees:

These include manure trees and premature trees.

Number of mature plants:

A total of fruit bearing tress (e.g. mango trees, orange trees, avocado trees e.t.c).

Instructions for permanent monocrops and crop mix:

- A. For a field with permanent monocrop enter farm size in collumn. 3.
- B. For a field with a permanent crop mix or a temporary crop mix, enter the number of trees only in collumn 4.
- C. For a field with a permanent crop mix /temporary annual crops , either:
 -Enter the area in collumn 4, if the total arae for permanent crops was obtained through calculaion of percentages of each crop
 OR
 Enter the number of tree in collumn 5, if the number of plants/ seedlings of permanent crops was excluded

21 Cassava: Cassava is a temporary crop, in order to simplify data collection on areas of production, data on cassava will be collected from areas under permanent crops.

Permanent crops:(crop oils)

Code	Crop	Area per crop
44	Palm Trees	0.00049
45	Coconut tree	0.00037
46	Cashew nut tress	0.00062

Permanent crops (Cash crops)

Code	Crop	Area per crop
53	Sisal	0.00012
54	Coffee	0.00049
55	Tea	0.00037
56	Cocoa	0.00049
57	Rubber	0.00099
58	Wattle	0.00099
59	Kapok	0.00124
60	Sugar-cane	0.00012
61	Cardamon	0.00049
63	Tamarin	0.00099
64	Cinarmon	0.00124
65	Nutmeg	0.00099
66	Clove	0.00074
18	Black pepper	0.00037
34	Pigeon Peas	0.00025
21	Cassava	0.00019
75	Pineapple	0.00006
86	Lemon Grass	

Permanent crops:

Code	Crop	Area per crop
70	Passion Fruit	0.00074
71	Bananas	0.00037
72	Avocado	0.00099
73	Mango	0.00099
74	Pawpaw	0.00037
76	Orange	0.00074
77	Grape fruit	0.00074
78	Grape	0.00012
79	Mandarin	0.00074
80	Guava .	0.00074
81	Plums	0.00074
82	Apples	0.00074
83	Peaches	0.00074
84	Mifyoksi	0.00074
85	Lime/lemon	0.00074
68	Pomelo	0.00099
69	Jack Fruit	0.00074
97	Durian	0.00074
98	Bilimbi	0.00074
99	Rambutan	0.00074
67	Bread Fruit	0.00099
38	Malay apple	0.00074
39	Star Fruit (Sakua)	0.00074

Definitions and working page for page 9

Storage (Col. 33, Q 5.3.1):

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storagesrutures improved through modern technology.

Marketing Challenges Q 5.3.1 Col. 35:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

Inputs (Q 5.3.1)

- Farm Yard Manure:** An organics fertliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical usde in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

Questions specific definitions

Q 5.3.1. Instructions on crops storage:

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

Q 5.3.1 Col 35

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

Working area/calculation space

Definitions and working page for page 10

Investment in agriculture

Investment activities:

Investment activities refer to medium to long term farm development structures and projects. This can be irrigation structures, erosion control and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

Irrigated farming: Section 6.5:

Source of irrigation water (Col 1): The main source of the water used for irrigation.

Method of obtaining water (Col 2): The mechanism by which the water is extracted from the source

Irrigatable area (Col 3): The area the irrigation system is designed to cover in acreage

Area of irrigated land during the 2007/08 (Col 5): Area of land under irrigation during the 2007/08 agricultural year. This is the actual area and NOT the cumulative areas recultivated in 2 or more cropping seasons.

Farm Implements (Col. 1):

Machette : Include all implements use in tree cutting namely cicle, etc.

Sprinkler: The pump carried on the back or a hand used water pump

Hand used small tractor: A small tractor used in cultivation while the user walks on foot (see photo).



Section 6.2 Use of draft animals

Animals used in agricultural activities by the household during 2007/08 agricultural season.

Castrated Bulls: Castrated oxen meant for use in agricultural production.

Uncastrated Bulls: mature bulls used for agricultural activities but are not castrated.

Cow: Farmers also use mature female cattle in agricultural activities due to shortage of bulls

Donkey: Mature Male or female donkeys are also used for agricultural production.

Q 6.5 Irrigation.

1. If a household uses irrigated farming give explanations on source and method of obtaining water. .

2. See Col 10, Q. 5.1.1 and 5.2.1 and Col 12, Q 5.3.1 to see if irrigation was applied to any crop.

Farm implements, Q 6.1:

1. Column 2 Indicate whether or not inputs were used

2. Complete column 3 by entering the number of inputs used.

Farm inputs: Sections 6.3 and 6.4

1. Column 2 Indicate whether or not inputs were used.

2. Complete column 3 by indicating where the inputs were obtained and column 4 by indicating the distance from where the inputs were obtained

Compost: An organic fertiliser made on farm from decomposed plant materials.

Insecticides: This is the chemical used in protecting plants or killing pests.

Fungicides: Protects plants from fungi attack.

Herbicide: Chemicals used to control or kills weeds.

Improved seeds: Scientifically attested to be suitable for agricultural use.

Tractor tiller	<input type="checkbox"/>	<input type="checkbox"/>			6.2.6 Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tractor hallow	<input type="checkbox"/>	<input type="checkbox"/>			6.3 USE OF ORGANIC FERTILISERS						
Castrated bulls	<input type="checkbox"/>	<input type="checkbox"/>			6.3.1 Give details on the use of organic fertilisers during 2007/08 agriculture year						
Uncastrated bulls	<input type="checkbox"/>	<input type="checkbox"/>			Type of fertiliser	Used	Yes=1, No=2	Quantity	Quantity used	Area used (Acre)	
Cows	<input type="checkbox"/>	<input type="checkbox"/>			(1)	(2)	(3)	(4)	(5)	(6)	
Donkeys	<input type="checkbox"/>	<input type="checkbox"/>			6.3.2 Manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shredding Machine	<input type="checkbox"/>	<input type="checkbox"/>			6.3.3 Compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>			<p>Quantity (Col 3) Kg.....1 Ton.....2</p> <p>Distance from the source (Col 4) Under 1 kilometre.....1 Between One and three kilometres2 Between three and 10 kilometres3 Between 10 and 20 Kilometres4 Over 20 Kilometres.....5 Not applicable.....9</p> <p>Source of irrigation water (Col 1) River.....1 Wells4 Lake2 Deep wells.....5 Dams.....3 Cannals6 Tape water.....7</p> <p>Means of obtaining water(C012) Flwoing. (gravity).....1 Using a bucket.....2 Water pump (using hand or leg).....3 Electric /fuel driven pump/ mafuta.....4 Other (Specify).....8</p>						
Oxen pulled plough for making terraces	<input type="checkbox"/>	<input type="checkbox"/>									
ACCES TO INPUTS											
Give details on inputs used during 2007/08 agricultural year											
Name of inputs	Used (Yes=1, No=2)	Source	Distance		<p>Source (Col.3) Government.....01 Cooperative Union.....02 Farm inputs store/market.....03 Auction.....04 Development project.....05 Corp buyers.....06 Large Scake farms.....07 Made by the household.....08 Form neighbour.....09 Cooperative Union.....10 Others98 Not applicable.....99</p>						
(1)	(2)	(3)	(4)								
Inorganic fertilisers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Farm yard manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Insecticides/Fungicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Pest and weeds control chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Improved seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
IRRIGATED FARMING											
Did the household use irrigated farming during 2007/08 agriculture year? Yes=1, No = 2 <input type="checkbox"/>											
If the answer is yes proceed to Section 6.6											
Na.	Main source of water for irrigation	Main source of obtaining water	Area that can be irrigated (Acre)	Area irrigated during 2007/08 agriculture year (Acre)							
	(1)	(2)	(3)	(4)							
6.5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							

Definitions and working page for page 11

Q 6.6

The type of erosion control/Water harvesting (Col 1)

Terraces: Structures constructed on mountain slopes to provide flat terrain for crop planting.

Erosion control bunds: these are bunks of earth/stones built perpendicular to the slope to slow down the speed of water and thus preventing soil erosion. Its differs from terraces in that the soils on these banks are not at ground level .

Gabions: A box like structure made of wire and filled with large stones to prevent gully erosion.

Sand bags: Are used in controlling and preventing gully erosion
Tree belt/wind breaks: Trees planted against the wind direction for breaking wind speed..

Section 7.0 Acces to credit for crop or livestock production

Credit refers to something provided in cash or in kind (such as farm inputs, machines, livestock and other things) for crop or livestock production. The value of the credit must be repaid back to the lender. An Interest may or may not be attached to the value of the credit

The credit may be repaid either in cash or through farm produce to be harvested .

In this question the enumerator is at liberty to inquire up to three sources of credit where the farmer accessed credit from more than one source.

Section 8.0 Agricultural Extension Services

Agricultural Extension Services: Refers to educational services provided to farmers by extension officers for the purposes of increasing crop and livestock production.

Share-cropping: Refers to farming where smallholder / Smallscale farmer enters into an agreement with large scale farmer where the former sells produce to the latter in exchange of provisions of farm inputs and the like. .

Contract farming Farming: Farming agreement entered between smallscale and large scale farmers with regards to markets of farm produce and provision of farm inputs

Q 6.6 Number of water harvesting structures and year of construction

1. The number water harvesting structures refers to the number of working / maintained structures and does not include derelict or irreparable structures.

2. Year of construction refers to the year in which the structures were built, and not the year the structures were last repaired. The year should be written in figures e.g. 1998, 2006.

Section 7.0 Source of agriculture credit

If the farmer obtained credit from more than one source the use the code from the list provided. Start with the main source of credit in Section "7.1.1".a

Section 8.0 Agricultural extension services

1. Ask if the household did receive agricultural extension services during 2007/08 agricultural season from the respondents listed in column 1, then enter column 2.

2. Complete all columns for every extension officer.

6.6 SOIL EROSION										
Identification <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										
6.6.1 Did the household experience soil erosion during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>										
6.6.2 Did the household applied any methods for erosion contro/water harvesting during 2007/08 agricultural year? (Yes=1, No =2) (If the answer is No, Proceed to Section 7.0) <input type="checkbox"/>										
Na.	Mechanisms of controlling erosion/ Water harvesting (1)	Number of water harvesting (2)	Year of construction (3)	Type of erosion control/water harvesting (1)	Number of water harvesting (2)	Year of construction (3)				
6.6.3	Terraces	<input type="checkbox"/>	<input type="checkbox"/>	6.6.7	Tree belt	<input type="checkbox"/>	<input type="checkbox"/>			
6.6.4	Bunks for erosion control	<input type="checkbox"/>	<input type="checkbox"/>	6.6.8	Soil bunks of water harvesting	<input type="checkbox"/>	<input type="checkbox"/>			
6.6.5	Gabions/sand bags	<input type="checkbox"/>	<input type="checkbox"/>	6.6.9	Trenches	<input type="checkbox"/>	<input type="checkbox"/>			
6.6.6	Vetiva leaves	<input type="checkbox"/>	<input type="checkbox"/>	6.6.10	Other	<input type="checkbox"/>	<input type="checkbox"/>			
7.0 ACCESS TO ON FARM CREDITS										
7.1 Is there any household member who accessed on farm credit during 2007/08 agriculture year? Yes=1, No=2 (If answer is NO, Proceed to Section 7.2) <input type="checkbox"/>										
SELECT UP TO THREE SOURCES AND PROCEED TO QUESTION 8.0										
<i>(Source of credit Q 7.1.1, 7.1.2, 7.1.3)</i>										
Relative..... 1 Saccos.....4 NGO/Development projects.....7										
Bank.....23 Businessman/Shop.....5										
Cooperative Union.....3 Private individuals.....6 Other.....9										
							Source of credit	7.1.1a	7.1.2a	7.1.3a
							Credit provided to	7.1.1b	7.1.2b	7.1.3b
							(Male=1, Female=2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2 IF THE ANSWER TO QUESTION 7.1 IS NO <input type="checkbox"/>										
Give reasons for not accessing credit										
<i>(Reasons for not accessing credit (Q 7.2)COL</i>										
Not required1 Did not to be indebted.....3 Did nott know how to access credit.....5 Credit delayed.....7 Did not credit existed.....9										
Not available2 High interest rates.....4 Bureaucracy.....6 Other (Specify).....8										
8.0 ADVISORY SERVICES IN AGRICULTURE										
8.1 Did the household participate in outgrowers scheme during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>										
8.2 Did the household participate in the contract farming during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>										
8.3 Your household receive agricultural advise on the following : (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION										
Na.	Advise on agriculture (1)	Received advice (Yes=1, No=2) (2)	Source of advise (3)							
8.3.1	Spacing	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.2	Use of agrochemicals	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.3	Soil erosion control	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.4	Use of organic manure	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.5	Matumizi ya mbolea za viwandani	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.6	Use of improved seeds	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.7	Use of modern farm implements	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.8	Irrigation	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.9	Crop Storage	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.10	Pest control	<input type="checkbox"/>	<input type="checkbox"/>							
8.3.11	Other (Specify)	<input type="checkbox"/>	<input type="checkbox"/>							
<i>(Source of agricultural advice (Cokl 3)</i>										
Government.....1 NGO/Development project.....2 Cooperative.....3 Large Scale farmer.....4 Radio/Newspapers.....5 Neighbour6 Other source.....8										

Definitions and working page for page 12

Q 9.1 and 9.3 : What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

Keeping or raising livestock is to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

Sections 9.1.1 to 9.1.7 Cattle

Note:

Q 9.1 is for the actual number of cattle owned or kept by the household (as of 1st October 2008). This number does not include herds of cattle kept on behalf by relatives or neighbours; that is, the cattle outside the residential area of the household under survey.

1. If the household keep mature fecund female cattle, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

Type of cattle (section 9.1.1 to 9.1.7)

Bull: Mature uncastrated male cattle used for breeding

Cow: Mature female cattle that has given birth at least once

Ox: Castrated male cattle used for farm work

Steer: Castrated male cattle used for meat

Heifer: Female cattle of 1 year up to the first calving

Section 9.3 Goat

Note:

Question 9.3 is for the actual number of owned or raised by the household (as of 1st October 2008) This number does not include goats kept on behalf by relatives or neighbours, that is the goat outside the residential area of the household under survey.

1. If the household has she goats, you would normally expect them to have kids

Type of Goat (Qs 9.3.1 to 9.3.5)

Billy Goat (he-goat): Mature Uncastrated male goat used for breeding

Castrated goat: Male goat that has been castrated

She Goat: Mature female goat over 9 months of age

9.0 LIVESTOCK (LIVESTOCK AND FISH)																											
9.1 CATTLE Identification <input type="text"/>																											
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3) <input type="text"/>																											
Number of cattle as of 1.10.2008																											
No.	Type of cattle	Number of indigenous cattle (2)	Number of improved cattle		Total (5)																						
			for meat (3)	Dairy (4)																							
9.1.1	Castrated bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.2	uncastrated bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.3	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.4	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.5	Heifer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.6	Male calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.1.7	Female calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
					Grand total <input type="text"/>																						
9.1.8 What main methods do you use to identify your cattle? <input type="text"/>																											
<table border="1"> <tr> <td colspan="7">Cattle identificatio methods</td> </tr> <tr> <td colspan="2">Iron stamp (chapa moto).....1</td> <td colspan="2">Throat....2</td> <td colspan="2">Ear/tail cutting.....3</td> <td></td> </tr> <tr> <td colspan="2">Colour.....4</td> <td colspan="2">Earrings...5</td> <td colspan="2">Other</td> <td>8</td> </tr> </table>							Cattle identificatio methods							Iron stamp (chapa moto).....1		Throat....2		Ear/tail cutting.....3			Colour.....4		Earrings...5		Other		8
Cattle identificatio methods																											
Iron stamp (chapa moto).....1		Throat....2		Ear/tail cutting.....3																							
Colour.....4		Earrings...5		Other		8																					
9.2 Milk production: CATTLE																											
Na.	Season (1)	Type of cattle (2)	Number of milked cows (3)	Average of milk per cow per day (litre) (4)	Average number of days which your cows were milked (5)	Average price per litre per season (6)																					
9.2.1	Rainy	Improved	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																					
9.2.2		Indigenous	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																					
9.2.3	Dry	Improved	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																					
9.2.4		Indigenous	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																					
9.3 GOAT																											
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3) <input type="text"/>																											
Number of goats as of 1.10.2008																											
Na.	Type of goat (1)	Number of indigenous goat (2)	Number of improved		Total (5)																						
			for meat (3)	Dairy (4)																							
9.3.1	Male uncastrated goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.3.2	Male castrated goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.3.3	She goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.3.4	Male kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.3.5	She kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
					Grand total <input type="text"/>																						
Milk Production: GOAT																											
Na.	Season (1)	Number of ilked goats (2)	Average of milk per goat per day (litre) (3)	Average number of days which your she goats were milked (4)	Average price per litre per season (5)																						
9.3.6	Rainy	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						
9.3.7	Dry	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																						

Definitions and working page for page 13

Q 9.1 and 9.3 : What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

Keeping or raising livestock is to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

Sections 9.4 Sheep

Note:

Q 9.4 is for the actual number of sheep owned or kept by the household (as of 1st October 2008). This number does not include sheep kept on behalf by relatives or neighbours; that is, the sheep outside the residential area of the household under survey.

1. If the the household keep ewes, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

Type of Sheepe (Section 9.4.1 to 9.4.5)

Ram: Mature Uncastrated male sheept used for breeding

Castrated sheep: Male sheep that has been castrated

Ewe: Mature female sheep over 9 months of age

Lamb: Young sheep under 9 months of age.

Section 9.5 Pigs

Note:

Question 9.3 is for the actual number of pigs owned or raised by the household (as of 1st October 2008). This number does not include pigs kept on behalf by relatives or neighbours, that is the cattle outside the residential area of the household under survey. .

1. If the household has she goats, you would normally expect them to have kids in column

Type of Pigs (Qs 9.5.1 to 9.5.5)

Boar: Mature Uncastrated male pig used for breeding

Sow: Mature female pig that has given birth to at least one litter of pigs.

Gilt; Female pig of over 3 months up to the first farrowing

Piglet: Young pig less than 3 months of age

Identification <input type="text"/>								
9.4 SHEEP				9.5 PIGS				
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.5) <input type="checkbox"/>				Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.6) <input type="checkbox"/>				
Number of sheep as of 1.10.2008				Number of pigsp as of 1.10.2008				
Na.	Type of sheep	Number of indigenous sheep	Number of improved	Total	Na.	Type Pigs	Number of pigs	
	(1)	(2)	(3)	(5)		(1)	(2)	
9.4.1	Ram	<input type="text"/>	<input type="text"/>	<input type="text"/>	9.5.1	Boar	<input type="text"/>	
9.4.2	Castrated sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	9.5.2	Castrated male	<input type="text"/>	
9.4.3	She sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	9.5.3	Sow/Gilt	<input type="text"/>	
9.4.4	Male lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	9.5.4	Male piglet	<input type="text"/>	
9.4.5	Female lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	9.5.5	Female piglet	<input type="text"/>	
Grand total				<input type="text"/>	Grand total		<input type="text"/>	
9.6 OTHER LIVESTOCK								
	Type of animal	Number as of 1 October 2008	Number of eggs			Type of animal	Number as of 1 October 2008	Number of Eggs
	(1)	(2)	(3)			1	(2)	(3)
9.6.1	Local chicken	<input type="text"/>	<input type="text"/>		9.6.6	Turkeys	<input type="text"/>	<input type="text"/>
9.6.2	Layers	<input type="text"/>	<input type="text"/>		9.6.7	Rabbit	<input type="text"/>	
9.6.3	Broilers	<input type="text"/>	<input type="text"/>		9.6.8	Donkeys	<input type="text"/>	
9.6.4	Ducks	<input type="text"/>	<input type="text"/>		9.6.9	Horses	<input type="text"/>	
9.6.5	Guinea pigs	<input type="text"/>	<input type="text"/>		9.6.10	Dogs	<input type="text"/>	

Definitions and working page for page 14

Control of livestock dieases causing bugs

Livestock worm control medicine: Medicine used to kill or control livestock on livestock . It is often used for cattle, goats, sheep and pigs.

Tiick: Is a dangerous bug that sucks blood form livestock and transmits animals diseases from one to the other animal.

Tse tse fly: A fly like bug that sucks blood from livetsock and transmits diseases sleewping sickness from one to the other animal.

Livestock advice (Section 9.8)

IA service provided by extension officers to livestock keepers for increasing livestock production.

9.7 LIVESTOCK DISEASES AND PEST CONTROL		Identificatio	
Did you livestock during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is No proceed to Section 9.7.5)		<input type="checkbox"/>	
Which animals did your deworm? (Yes=1, No =2, Not applicable=3 in the relevant box)		<input type="checkbox"/>	
9.7.1 Cattle <input type="checkbox"/>	9.7.2 Goat/Sheep <input type="checkbox"/>	9.7.3 Pigs <input type="checkbox"/>	9.7.4 Poultry <input type="checkbox"/>
9.7.5 Do you experience tick problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.6 How did you control tick problem? <i>Control method (Q. 9.7.6): Dipping.....1 Spaying.....2 Application of medicine on back bone.....3 None..4 Other.....8</i>		<input type="checkbox"/>	
9.7.7 Do you experience Tse tse problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.8 How did you control Tse tse problem with your livestock? <i>Control method (Q. 9.7.8): Dipping.....1 Spaying.....2 Traps.....3 None..4 Other.....8</i>		<input type="checkbox"/>	
9.7.9 Do you experience Newcastle disease problem with your poultry? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.10 How do you control Newcastle disease problem with your poultry? <i>Control/curative methods (Q. 9.7.10) Vaccination..1 Herbs....2 None..3</i>		<input type="checkbox"/>	
9.7.11 Did you experience Fowl Typhoid with your poultry? Yes=1, No=2 , Not applicanlei=3		<input type="checkbox"/>	
9.7.12 How did you cotrol/ cure Fowl Typhoid with your poultry? <i>Control/curative methods(Swall 9.7.12 Vaccination..1 Herbs....2 Noe..3</i>		<input type="checkbox"/>	
9.7.13 Were your cattle vaccinated agaionst the following diseases? (Yes = 1, No = 2, Not applicable=3). 9.7.13 A:Foot and Mouth diseases <input type="checkbox"/> 9.7.13B: Skin disease <input type="checkbox"/>		<input type="checkbox"/>	
9.8 Extensmion services on livestock			
Did you receive the following extension advice on the followingJe? (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION)			
Na.	Livestock extension advice	Received Extension advice (Yes=1, No=2)	Soure of Extension
	(1)	(2)	(3)
9.8.1	Feed and better feeding methods	<input type="checkbox"/>	<input type="checkbox"/>
9.8.2	Improved livestock shed (Goat, Dairy cattle, Poultry and pigs)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.3	Milking and hygiene	<input type="checkbox"/>	<input type="checkbox"/>
9.8.4	Cattle fattening	<input type="checkbox"/>	<input type="checkbox"/>
9.8.5	Livetsock diseases control	<input type="checkbox"/>	<input type="checkbox"/>
9.8.6	Livestock keeping in line with land availability	<input type="checkbox"/>	<input type="checkbox"/>
9.8.7	Pasture establsihment and maintainence	<input type="checkbox"/>	<input type="checkbox"/>
9.8.8	Forming and strengthening groups/cooperatives	<input type="checkbox"/>	<input type="checkbox"/>
9.8.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>
9.8.10	Basics of production and use of improved bulls (AI)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.11	Animals feed production	<input type="checkbox"/>	<input type="checkbox"/>
9.8.12	Other extension advice (Specify)	<input type="checkbox"/>	<input type="checkbox"/>
Source of agriculture extesnion(S/wima 3) SGovernment.....1 NGO/Development project.....2 Cooperative Union.....3 Large Scale farmer.....4 Radio/TV/Newspapere.5 Neighbour.....6 Other source8			

NOTE : If answers to Qs 9.1 to 9.6 is No (THAIS THE HOUSEHOLD DOES NOT RAISE LIVESTOCK), Proceed to q.9.9

Definitions and working page for page 15

General definitions

Fish farming: Refers to the rearing/production of fish. It is different from fishing in that in fish farming the fish have to be reared. While in fishing, fishing nets or traps are used to catch fish from rivers, lakes and the sea; thus fishing should not be included in this section

I

Question Specific Definitions (Q 9.9)

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, tye of fish etc. eg. a farmer may have 3 fish ponds (each one is a separate production unit).

Frequency of stocking (Col . 5): What is the number of time the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

Sols: (Col 10 & 11)

If no fish were sold enter "0" in column 10 and 11`

Fish sold (Col.12)

Kama hakuna samaki waiouzwa jaza "0" katika safuwima 12

Working space for page 15

9.9 FISH FARMING														Identification <input type="text"/>			
Did your household practice fish farming? Yes=1, No=2 (If the answer is no proceed to section 9.10) <input type="checkbox"/>																	
Give details on the fish farming during 2007/08 agriculture year																	
No.	Number of Ponds	Aina ya ufugaji	Square area of pond (m ²)	Source of fingerings	What is the frequency of stocking during the period?	Kiwango cha Huduma ya bwawa	Total number of stoked fish				Total number of fish harvested	Total weight of all fish		What is the main fish outlet?			
							Tialpia	Mwatiko	Crabs	Lulu		waliouliwa (kg)	waliouzwa (kg)				
							(7)	(8)	(9)	(10)		(11)	(12)		(13)	(14)	
9.9.1	1																
9.9.2	2																
9.9.3	3																

Type of farming (SCol 2)

Natural pond.....1
Small earth pond.....2
Large pond.....3
Other8

Standard of servives to the pond (Col6)

High leve1
Intermediate level.....2
Low leve.....3
Don't know.....8

Source of fingerings(Col 4)

From the pond.....1 Neighbour.....4
Government.....2 Business man.....5
NGO/Development Project...3 Natural Pond.....6
Other8

mainly sold to? (Col 14)

Neighbour...1 Auction.....3 Large Scale farmers.....5
Open market....2 Fish processing industry..4 Private business people6
Did not sell.....7 Other8

9.10 HONEY PRODUCTION																	
Is there honey production/harvesting in your household? Yes=1, No=2 (If answer is no PROCEED to Section 9.11) <input type="checkbox"/>																	
Give details on honery harvesting during 2007/08 agriculture year																	
Number	Type of honey	Harvesting done ? (Yes=1, No=2)	Number of improved bee hives	Number of local bee hives	Amount sold per year (Litre)	Amount of honey sold (litre)	Price per litre	Main market	<p>Honey outlet Co 8</p> <p>Neighbour...1 Auction.....3 Large Scale farmers.....5 Open market....2 Fish processing industry..4 Private business people6 Did not sell.....7</p>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)									
9.10.1	Small bees																
9.10.2	Large bees																

9.11 AGRICULTURAL CHALLENGES																	
From the list of cahhalengs in farming on the right of the page, SELECT FIVE MAIN CHALLENGES WHICH constrain your development in agriculture																	
No	With first five priorities	Code	No	Important for	Code	<div style="border: 1px solid black; padding: 10px; display: inline-block;"> <p>LIST OF CHALLENGES</p> <ul style="list-style-type: none"> 01 Land availability 02 Land ownership 03 Poor farm implementso 04 Soil fertility 05 Availability of improved seeds 06 Irrigation services 07 Availability of agrochemicals 08 Cists of farm inputs 09 Extension services 10 Availability of forest resources 11 Huntinf and collection problems 12 Water availability 13 Access to credits 14 Lack of off farm incomes 15 Harvesting problems 16 Kupukuchua 17 Crop storage 18 Crop processing 19 Market information 20 High transporation costs 21 Destructive animals 22 Crop thefyt 23 Pests and diseases 24 Advice from Local government 25 Long dry spells 26 Conflicts between livetsock keepera and pastoralists </div>											
	(1)	(2)		(1)	(2)												
9.11.1	Priority 1		9.11.4	Priority 4													
9.11.2	Priority 2		9.11.5	Prity 5													
9.11.3	Priority 3																

Definitions and working page for page 16**10.0 Household poverty indicators****Number of rooms used for sleeping in the household (Q 10.1.4)**

Include sitting room, dining room, kitchen, etc if used for sleeping.

It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building / house that is not divided into rooms is considered to have one room.

Household assets (Q 10.2):

These assets must be functional. Do not include if broken.

Access to drinking water (Q 10.4):

If there is more than one source use the one, which the hh uses most frequently.

Main source of hh cash income:(Q 10.7:





Activity that provides the hh with the most cash during 2007/08 agricultural season.

10.0 POVERTY INDICATORS		Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>																																							
<p>10.1 HOUSE CONSTRUCTION Specify materials used in the construction of the following sehemu zifuatazo</p> <p>10.1.1 Roof <input type="checkbox"/> 10.1.2 Floor <input type="checkbox"/> 10.1.3 Wall <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Roofing materials</p> <p>Iron sheets.....1 Tiles.....2 Concrete.....3 Asbestos.....4 Grass/Makuti.....5 Grass and mud.....6 Other.....8</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Floor materials</p> <p>Earthen material.....1 Wood.....2 Wooden tiles...3 Tiles.....4 Cement.....5 Other.....8</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Main materials</p> <p>Grass and pieces of woods.....1 Mud.....2 Wet bricks.....3 Burnt bricks...4 Wood.....5 Block bricks.....6 Stonese.....7 Bricks/Mawe ya kichanga.....8</p> </div> <p>10.1.4 Number of bedrooms <input type="text"/></p>		<p>10.2 Household property Does your household woen the following?, (Yes=1 No =2)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number</th> <th>Property</th> <th>Yes=1, No=2</th> </tr> <tr> <th></th> <th>(1)</th> <th>(2)</th> </tr> </thead> <tbody> <tr><td>10.2.1</td><td>Radio (Radio, Radio Casette, music system)</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.2</td><td>Land line</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.3</td><td>Celkl phone</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.4</td><td>Iron</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.5</td><td>Trolley</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.6</td><td>Bycicle</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.7</td><td>Vehicle</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.8</td><td>TV/ Video</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.9</td><td>Refrigerator</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.10</td><td>Motorbike/vespa</td><td><input type="checkbox"/></td></tr> </tbody> </table>				Number	Property	Yes=1, No=2		(1)	(2)	10.2.1	Radio (Radio, Radio Casette, music system)	<input type="checkbox"/>	10.2.2	Land line	<input type="checkbox"/>	10.2.3	Celkl phone	<input type="checkbox"/>	10.2.4	Iron	<input type="checkbox"/>	10.2.5	Trolley	<input type="checkbox"/>	10.2.6	Bycicle	<input type="checkbox"/>	10.2.7	Vehicle	<input type="checkbox"/>	10.2.8	TV/ Video	<input type="checkbox"/>	10.2.9	Refrigerator	<input type="checkbox"/>	10.2.10	Motorbike/vespa	<input type="checkbox"/>
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10.2.8	TV/ Video	<input type="checkbox"/>																																							
10.2.9	Refrigerator	<input type="checkbox"/>																																							
10.2.10	Motorbike/vespa	<input type="checkbox"/>																																							
<p>10.3 Energy use and availability in the hhousehold</p> <p>10.3.1 Lightning <input type="checkbox"/> 10.3.2 Cooking <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Nishati za Kuangazia</p> <p>Umeme.....01 Sola.....02 Gesil (biogas).....03 Taa ya kandili.....04 Karabai.....05 Kibatari.....06 Mishumaa.....07 kuni.....08 Nyingine.....98</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Nishati za kupikia</p> <p>Umeme.....01 Sola.....02 Gesil (biogas).....03 Gesil (Kiwandani).....04 Mafuta ya taa.....05 Mkaa.....06 Kuni.....07 Mabaki ya Mazao...08 Kinyesi cha Wanyama.....09 Nyingine.....98</p> </div>		<p>10.4 Availability of drinking water</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Season</th> <th>Main source of water</th> <th>Distance from source (km)</th> <th>Time spent waiting or going to and from the source (Hours)</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> </thead> <tbody> <tr> <td>10.4.1 Rainy</td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>10.4.2 Dry period</td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Main sourece of drinking water</p> <p>Col. 2</p> <p>Tape water.....01 Water venders.....09 Arificial well.....02 Boozer.....10 Arificial spring...03 Bottled water.....11 Openwell.....04 Other (Specify).....98 Natural spring.....05 Lake water,piond,river,stream n etc.....06 Covered Rain water harvesting well...07</p> </div>				Season	Main source of water	Distance from source (km)	Time spent waiting or going to and from the source (Hours)	(1)	(2)	(3)	(4)	10.4.1 Rainy	<input type="text"/>	<input type="text"/>	<input type="text"/>	10.4.2 Dry period	<input type="text"/>	<input type="text"/>	<input type="text"/>																				
Season	Main source of water	Distance from source (km)	Time spent waiting or going to and from the source (Hours)																																						
(1)	(2)	(3)	(4)																																						
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10.4.2 Dry period	<input type="text"/>	<input type="text"/>	<input type="text"/>																																						
<p>Note: Code01, Bomba kwa Zanzibar hujulikana kama Mfereji</p>																																									
<p>10.5 Toilet facilities</p> <p>10.5.1 What type of toilet does your hosuehold use? <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px;"> <p>Type of toilet</p> <p>No toilet/in the buish.....1 Pit latrine....4 Flash toilet.....2 Other type (Specify).....8 Ordinal pit latrine.....3</p> </div>		<p>10.6 Eating patterns</p> <p>10.6.1 How many meals does your hosue usually get per day ? <input type="checkbox"/></p> <p>10.6.2 How days did the household eat meat last week? <input type="checkbox"/></p> <p>10.6.3 How days did the household eat fish last week? <input type="checkbox"/></p> <p>10.6.4 How many times did the household experience food shortages last year? <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Food shortage problems (Swali 10.6.4)</p> <p>Never.....1 Few times.....2 Sometimes.....3 Many times.....4 Often.....5</p> </div>																																							
<p>10.7 Main source of household cash income?</p> <p>10.7.1 What are the sources of household income? <input type="text"/></p> <div style="border: 1px solid black; padding: 5px;"> <p>Code for source of income</p> <p>Selling food crops.....01 Sales of foerst products...05 Cash assisnatce...09 Sales of livestock.....02 Business.....06 Fishingi.....10 Sales of livestock products....03 Salaries.....07 Other.....98 Sales of cash crops...04 Casual labour.....08 None.....99</p> </div>																																									
		<p>TIME OF FINISHING THE INTERVIEW</p>		<p>Hour <input type="text"/></p>	<p>Minutes <input type="text"/></p>																																				

Average/maximum yields per area									
Use this table to compare the yields calculated in Sections 5.1, 5.2 and 5.3.									
These stats are strictly to be used as a guide for the purpose of assisting to get the correct area and yields for each crop.									
Name of Crop	Kilogram/ha		Kilogram/acre		Name of Crop	Kilogram/ha		Kilogram/acre	
	Average	Max	Average	Max		Average	Max	Average	Max
11 Maize	1,150	6,250	466	2,530	86 Cabbage	20,000	50,000	8,097	20,243
12 Paddy	700	4,000	283	1,619	87 Tomatoes	25,000	60,000	10,121	24,291
13 Sorghum	750	3,500	304	1,417	88 Spinach	15,000	17,000	6,073	6,883
14 Bulrush Millet	350	3,000	142	1,215	89 Carrot	25,000	30,000	10,121	12,146
15 Fungeer Millet	300	2,500	121	1,012	90 Pepper	3,500		1,417	0
16 Wheat	1,150	4,500	466	1,822	91 Amaranthus	20,000	40,000	8,097	16,194
17 Barley	1,400	1,800	567	729	92 Pumpkin	35,000	40,000	14,170	16,194
16 Cassava	3,000	7,000	1,215	2,834	93 Cucumber	5,000	10,000	2,024	4,049
17 Sweet potatoes	600	8,000	243	3,239	94 Egg plant	30,000	60,000	12,146	24,291
18 Irish potatoes	750	8,500	304	3,441	95 Water melon	10,000	20,000	4,049	8,097
19 Yams	4,000	10,000	466	1,822	96 Caouliflower	17,000	20,000	8,097	16,194
25 Coco yams	2,500	5,000	567	729	52 Cotton	800	25,000	14,170	16,194
26 Onions	30,000	50,000	1,215	2,834	54 Coffee	500	100	2,024	4,049
27 Ginger	20,000	30,000	243	3,239	55 Tea	2,500	10,000	12,146	24,291
31 Mahare Beans	400	1,300	304	3,441	56 Cocoa	150	1,000	4,049	8,097
32 Cow peas	300	1,750	121	709	57 Rubber	400	1,400	6,883	8,097
33 Green gram	1,500	1,800	1,012	2,024	58 Wattle			324	10,121
34 Pigeon peas	600	1,500	243	607	59 Kapok			0	0
35 Chick peas	500	1,500	202	607	60 Sugar cane	60,000	150,000	24,291	60,729
36 Bambara nuts	600	4,000	243	1,619	61 Cardamon	3,000		1,215	0
41 Sun flower	600	1,700	243	688	71 Banana	10,000	50,000	4,049	20,243
42 Simsim	300	1,000	121	405	72 Avocado			0	0
43 Gound nuts	600	4,000	243	1,619	73 Mango	10,000	25,000	4,049	10,121
47 Soyabeans	1,300	2,500	526	1,012	74 Pawpaw	50,000	70,000	20,243	28,340
48 Caster seeds	300	750	121	304	76 Orrage	15,000	40,000	6,073	16,194
75 Pineapple	25,000	60,000	10,121	24,291	77 Grape fruit	30,000	50,000	12,146	20,243
50 Cotton	300	1,500	121	607	78 Grapes	5,000	30,000	2,024	12,146
51 Tobacco	500	1,500	202	607	79 Mandarin	15,000	40,000	6,073	16,194
53 Pyrethrum			0	0	80 Quava	7,000	35,000	2,834	14,170
62 Jute	800	3,500	324	1,417	81 Plums			0	0
44 Palm oil	1,150	5,000	466	2,024	82 Tufaha		20,000	0	8,097
45 Cononut	1,500	8,000	607	3,239	83 Pea	15,000	27,000	6,073	10,931
46 Cashw nut	9	60/tree	4	24	84 Pitches	14,000	57,000	5,668	23,077
					66 Clove	4,500	5,000	1,772	1,969
					Black pepper	2,000	3,750		
					Mung'unye				
					Ocra	1,000	1,500		

Appendix V

Community Level Questionnaire

ACQ 3	United Republic of Tanzania	CONFIDENTIAL																				
																						
 Village/Community Level Formats Access to and Use of Community Resources Farm Gate Prices of commodities produced by the village																						
																						
 Agricultural Sample Census 2007/2008																						
NUMBER OF FARMERS HH IN THE VILLAGE To be filled by the enumerator after completing form ACLF2																						
NUMBER OF HH MEMBERS To be filled by the enumerator after completing form ACLF2																						
Region		Ward																				
District		Village																				
Enumerator Name _____ Signature _____																						
Date of Enumeration <table style="width:100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> <td style="border: 1px solid black; width: 20px; text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">d</td> <td style="text-align: center;">d</td> <td style="text-align: center;">/</td> <td style="text-align: center;">m</td> <td style="text-align: center;">m</td> <td style="text-align: center;">/</td> <td style="text-align: center;">y</td> <td style="text-align: center;">y</td> <td style="text-align: center;">y</td> <td style="text-align: center;">y</td> </tr> </table>												d	d	/	m	m	/	y	y	y	y	Start Time End Time
d	d	/	m	m	/	y	y	y	y													
Field level checking by: District Supervisor Name _____ Signature _____ Date ____/____/____ Regional Supervisor Name _____ Signature _____ Date ____/____/____ National Supervisor Name _____ Signature _____ Date ____/____/____		To be filled by the supervisor ONLY after field/farm level checking of the enumeration process. This should be countersigned by the Supervisor in front of the enumerator All questionnaires must be checked at the district office.																				
District checking in Office District Supervisor Name _____ Signature _____ Date ____/____/____																						
For Use at Regional Level Only Data entered by: Name _____ Signature _____ Date ____/____/____ Queried Name _____ Signature _____ Date ____/____/____		See the back page for details of queries																				
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Government of Zanzibar																						

Definitions and working page for page 3

Question Specific Definitions:

Obtain answers to the following questions from the meeting between the enumerator and influential farmers in the village. Influential people can be Village Chairman, Village Government Executive Officer, Councillor, Ward Chairman, Extension Officer in the village or any other person in the village and who is well informed about village matters. It is important to not that these questions must be asked in groups (of more than one people) to obtain answers discussed and approved by many people.

Definitions of some specific terms

Access to community resources. Section 1.0

Community Resources: Resources in which the hh members have no individual claim to and which are shared together by all the village
Community Land: The area official demarcated by the village as shared/public land.
Squatting farmers Land: Communal land where individual hhs make sole claim to (for crop farming or fenced livestock) without official rights to ownership.
Available remaining Land: Official area of communal land minus areas of squatting farmers.
Government Land Reserve: Area set aside by the government as national reserve

Community tree planting scheme(Section 14.3)

Community Forest: A forest planted on the communal land which is planted, replanted or spt planted by the members of the village.
Plant Planting: An area designated by the village for planting a block of trees.
Spot Planted: Replanting an area where selective logging has been carried out. A tree is planted to replace the one that has been cut.
Indigenous Trees: Trees that are native to Tanzania
Exotic Trees: Trees that are not native to Tanzania

Non Government Organisation: Is managed by people from outside the village and it normally covers more than one village/District/R region. Its function is to provide deveoopment assistance to the farmer and is free from direct government links.

Village level organization: is managed by members of the village. Its purpose is normally to access/provide development assistance to the village

ACCESS TO COMMUNAL RESOURCES

1 ACCESS TO COMMUNITY RESOURCES									
1.1 Does the village set aside an area for communal resources e.g. forest, grazing, etc. (Yes=1 No=2) <input type="checkbox"/>									
<i>(If the answer is no proceed to 1.2)</i>									
Area of Community, Village, Ward resources					Area in acre				
1.1.1 Total area of communal land <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Official figures from the leader									
1.1.2 Area of squatting farmers in communal land <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Key informant (Leader/Extension officer etc.)									
1.1.3 Remaining available communal land <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Key informant (Leader/Extension officer etc.)									
1.1.4 Government reserve land <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Key informant (Leader/Extension officer etc.)									
1.2 UPATIKANAJI NA MATUMIZI YA MALIASILI ZA JUMUIYA/KIJI/SHEHIA									
Community Resources		Distance from the resource in Km -season			Main Use		Instructions on distance from the resource (Cols 2 and 3): Distance is estimated from the centre of the village. If under 1 km 1, enter 0 If above 1 km 1 enter whole number , eg. 1.5km= 2km, 1.25km= 1km Main uses (Col. 4) Home or farm /livestock consumption...1 Sold to traders in the village.....2 Sold to the village market.....3 Sold to local wholesalers.....4 Sold to Big wholesalers5 Not available.....6		
		Dry	Rainy						
		(2)	(3)		(4)				
1.2.1 Water for human consumption		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.2 Water for livestock		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.3 Communal grazing land		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.4 Communal firewood		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.5 Wood for charcoal burning		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.6 Wood for building poles		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.7 Forest for bee keeping (honey)		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.8 Hunting		<input type="text"/>	<input type="text"/>		<input type="text"/>				
1.2.9 Fishing		<input type="text"/>	<input type="text"/>		<input type="text"/>				
2.0 COMMUNITY PLANTED TREES									
2.1 Did your village have community planted trees during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>									
<i>If the answer is no proceed to Section 3.0</i>									
Details of the community tree planting scheme									
No.	Distance from the community forest	Forest Area (acre)	Type of Planting	Type of Trees	Source of seeds/ Seedlings	Number of Years since the start of planting	Main uses 2007/08 agriculture year	Main uses of communal forest products	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Type of planting (Col. 3) Pole/Plantation planting.....1 Spot planting.....2 Type of trees (Col. 4) Indigenous trees.....1 Exotic tree.....2 Both types.....3		Source of seedlings (Col. 5) Seeds collection and planting.....1 Village Nursery.....2 Department of Forestry.....3 Private Individuals.....4			Main Uses (Col. 7) Poles1 Wood2 Charcoal3 Firewood4 Other (Specify)		Main use of revenue (Col.8) Village development fund.1 Household use.....2 Household Income.....3		
3.0 Non governmental Organisation (NGOs) Contact					4.0 Community Based Organisation				
3.1 Did any NGO visit the village during 2007/08 agriculture year? (Yes=1, No=2) (If no proceed to Section 4)					4.1 Did the village have any CBO during the 2007/08 agriculture year? (Yes=1, No=2)				
Na.	Type of NGO	Visited Y=1, N=2	Number of visits	Distance to the Office (km)	Na.	Type of CBO	Nd=1, Hap=2		
3.2	Extension/ Research	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.2	Extension/ Research	<input type="text"/>		
3.3	Service /Input provision	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.3	Service /Input provision	<input type="text"/>		
3.4	Community Development	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.4	Community Development	<input type="text"/>		
3.5	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.5	Other	<input type="text"/>		
5.1 Did the village have Field farm schools during 2007/08, agriculture year? (Yes=1, No=2) <input type="checkbox"/>					5.2 Did the village participate in any research on crops/ improved livestock during in the village during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>				
5.3 Did the village have local ironsmiths during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is 2 proceed to q. 5.5) <input type="checkbox"/>					5.5 Did the village have any training centres on draft animals during 2007/08 agriculture year? (Yes=1, No=2) (If number 2 is the answer conclude the enumeration) <input type="checkbox"/>				
5.4 Number of local ironsmiths <input type="text"/>					5.6 Number of training centres for draft animals <input type="text"/>				

Obtain answers to the following questions from the meeting of enumerator and key informants in the village. Key informants can be a village chairman, Village Local Government Executive Officer, Councillor, Ward Chairman, Village extension officer, or any knowledgeable member in the community. Where possible ask these questions to a group in order to reach a consensus. The number should be below five people.

Procedure: Administer this form after completing all smallholder questionnaires for the village.
1. Copy the name of all crops from Sections 5.1, 5.2 and 5.3 grown in the village from smallholder questionnaires. This should also include livestock raised by the household from questions 9.1, 9.3, 9.4 and 9.5 and enter them in column 1 of this form. Also see codes for livestock below.
2. Enter price estimates per kg in column 5 and 6.

Table with columns: Name of crop/livestock (1), Code of crop/livestock (2), Name of main crop (3), Code of Main crop (4), Type of measure (5), Minimum Price Per year (6), Maximum Price Per year (7). The table contains a grid of empty boxes for data entry.

Type of livestock (Col 2)
Cattle01 Ducks07
Goat02 Turkey08
Sheep03 Rabbit09
Pigs04 Kanga10
Poultry05 Simbiksi11
Donkeys06

Main product- CROPS (Col.4)
Cereals01 Flowers eg. Pyrethrum07
Green maize02 Vegetables08
Green leaves and stem03 Fruit09
Straw, dry stems etc.04 Other10
Roots and tubers, etc05
Leaves (Tobacco etc)06


Main product- LIVESTOCK (Col. 4)
Live animals01
Meat02
Milk03
Eggs04

Quantity (Col.5)
Kg1
Number2
Litre3
A portion/piece4

Appendix V

Village Community Level formats


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ACL F 1




Sub-village /ward leader listing from

Region _____ Code Ward _____ Code

District _____ Code Village _____ Code

Sub village leader Number	Name of Ward village leader	Number of Households		Comments
		Form Office Register	After enumeration	
(1)	(2)	(3)	(4)	(5)
<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	


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ACL F 2



Household listing from-for listing hh heads and agriculture activities

Region _____ Code Name of sub village leader _____

District _____ Code Name of sub village _____

Ward _____ Code


Village _____ Code

Household number	Household head name	Number of										If the Respondent Qualifies X	Farmer Serial Number
		Fields a	Cattle				Goats	Sheep	Pigs	Kuku/Bata/	Rabbit		
			Total	Bulls	Cows	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<input type="text"/>													
<input type="text"/>													
<input type="text"/>													

ACLF 3


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**National Agriculture Sample
Census 2007/08**

Household listing for 15 selected farmers





Region _____ Code
District _____ Code

ward : _____ code
village _____ code

Namba Sawia
Hatua

SN	Sub-village leader Number	Name of sub-village leader	Name of selected head of household	Name of Household Head	Number of					
					Field	Cattle	Goat	Sheep	Pigs	Poultry
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)